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DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister;

W. W. CORY, Deputy Minister

CANADIAN NATIONAL PARKS BRANCH

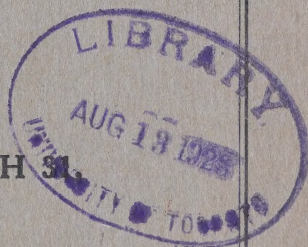
J. B. HARKIN, Commissioner

1315

Annual REPORT
OF THE COMMISSIONER OF
CANADIAN NATIONAL
PARKS

FOR THE YEAR ENDING MARCH 31

1921/1922



OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1923



SINCLAIR CANYON

The western portal of the Banff-Windermere motor highway, Kootenay National park.

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CANADIAN NATIONAL PARKS BRANCH

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CANADIAN NATIONAL PARKS

REPORT OF THE COMMISSIONER, J. B. HARKIN

The steady increase in travel to nearly all of the Canadian National parks has been the most gratifying feature of the past fiscal year (1921-22) and a matter for great satisfaction to all who are concerned with their administration. It indicates more clearly than words the great and increasing service these reservations are capable of rendering and, both from the economic and social aspect, justifies their creation, maintenance and development. A few years ago, Dr. T. G. Langstaff, the eminent alpinist, writing of the Canadian Rockies and the National parks in the "London Field," remarked that it seemed to him that Canadians scarcely realized the value of their unique possessions, and it must be admitted there appeared to be good grounds for his indictment. For many years the name of the Canadian Rockies was better known abroad than at home but there is now noticeable on the part of Canadians themselves a growing interest in the beauty of their own country and an appreciation of the rich possibilities for enjoyment and recreation offered by the National parks, and each year sees a steady gain in the number of Canadian visitors.

Owing to the high cost of railway travel this traffic has not yet reached the high water mark set in 1915, the year of the Panama-Pacific exposition, but it is noted with a great deal of satisfaction that people tend each year to remain an increasing length of time in the parks. While the total registrations are necessarily lower the use that is being made of the parks is a much better use and one that is more consistent with the ideals lying behind their creation. For while no one can travel through the Canadian Rockies or spend even a few hours among the wonders of the National parks without gaining a new conception of the greatness and beauty of Canada and of the possibilities of national life, still the mountains yield their real riches only to those who come and live among them, absorbing through days and weeks their strength and health and beautiful serenity. These are the things the parks were created to give and they cannot be gained by the visitor who rushes through them in a few hours either by railway train or motor car. The fact that so many Canadians are making the parks the objective for their entire holiday is, therefore, a matter for much satisfaction. The total travel to the parks during the past fiscal year is as follows:—

	1921-22
Banff National Park.. . . .	71,540
Yoho National Park.. . . .	3,000
Glacier National Park.. . . .	3,223
Mount Revelstoke Park (estimated).. . . .	4,000
Jasper National Park (estimated).. . . .	7,000
Waterton Lakes National Park (estimated).. . . .	20,000
Buffalo National Park (estimated).. . . .	7,000
Elk Island National Park.. . . .	5,443
Point Pelee National Park (estimated).. . . .	7,000
St. Lawrence Islands National Park (estimated).. . . .	30,000
Port Anne National Park (estimated).. . . .	8,000
Total.. . . .	166,206

THE YEAR'S TRAVEL ANALYZED

An analysis of the year's travel shows that 88,763 people went to the large parks along the main railway lines, of whom approximately 65,000 were from foreign countries. Estimated on the basis of expenditure used in this report in former years, namely, \$300 for each foreign visitor, which is admitted to be a conservative figure, it means that the national parks are responsible for an indirect revenue of approximately \$19,500,000.

The total appropriations for the National parks during the past year were \$966,000. According to the last census the population of Canada numbers 8,775,853 so

that the National parks last year cost the people of Canada about 12 cents per capita. As shown above however, they bring in an indirect revenue of \$19,500,000, or a per capita return of approximately \$2.22. That is indirect revenue. But it must be remembered that this \$19,500,000 is divided among the people and increases their incomes to that extent. A good part of it is, therefore, taxable under the business and income tax so that a considerable percentage of it comes back again directly to the Dominion treasury by way of this tax. There are also other revenues from the parks, from the sale of timber and from various concessions and leases, which amounted last year to \$72,000.

In addition there were approximately 27,000 foreign visitors to the smaller parks and while these, in some instances, as at Point Pelee park or the St. Lawrence Islands park, might represent an expenditure of only a few dollars, in the other cases and in the aggregate it would amount to a considerable sum. It must be remembered, too, that the parks performed a direct service, which cannot be calculated in dollars and cents, by serving as a means of recreation for nearly 75,000 Canadians.

A considerable part of the increase in Canadian travel must be credited to the increasing use of the automobile. An analysis of the registrations of cars at Banff shows that a very large percentage come from points on the prairies although there are cars from as far east as Winnipeg and from practically every section of the United States. The gratifying feature of this class of travel is that it also indicates that these great reservations are becoming each year more truly "people's parks". It means that they are no longer a luxury within reach only of the rich. Any one from Vancouver to Winnipeg who owns a car may now enjoy the delights and benefits of a holiday among the mountains at a slight expenditure of both time and money.

As was the case last year the greatest comparative gain has been in the smaller parks, Waterton Lakes park, which is becoming deservedly popular, again showing a very large increase. Elk Island park, which serves not only for a buffalo reserve but for a summer resort as well, also reports an increasing number of campers and at Point Pelee park in southern Ontario, although no registrations were kept, the superintendent reports that travel was the largest yet experienced.

A growing interest in the historic parks is also noticeable. Each year the honorary superintendent of Fort Anne park, Annapolis Royal, reports a steady gain. This year he estimates the number of visitors, not including people from the town itself, would total 8,000, the largest yet recorded in the history of the park.

The increasing number of demands for information of various kinds about the parks and requests for illustrated lectures on the part of schools, clubs, and other organizations, as well as for material for articles from newspapers and magazines evidences also a much livelier interest in the parks on the part of the general public and indicates the formation of a public sentiment out of which we may confidently expect to draw a large tourist travel in the future.

POSSIBILITIES OF TOURIST TRAVEL

For some years there has been pointed out in this report the tremendous undeveloped possibilities that lie within Canada's reach with respect to tourist travel. It is increasingly apparent that the value of tourist traffic is now becoming widely recognized. The experience of those provinces which have undertaken special publicity campaigns and the prosperity that has followed the building of motor highways have convinced everyone that tourist travel pays, and that it can be developed like any other industry. Herbert Cuthbert, Secretary of the Pacific Northwest Tourist Association, at the Annual Conference of the organization in Tacoma in April, 1922, stated that five years ago tourist traffic into the Pacific Northwest was worth only \$7,000,000. In 1921, as a result of organized publicity, it reached \$40,000,000 and it was expected it would total \$60,000,000 in 1922. An industry that can be developed from \$7,000,000 to \$60,000,000 in five years by an expenditure of a few hundred thousand dollars must be taken into consideration by every economist. The total dividends from the gold and silver mines of Ontario up to 1921, according to figures

recently published in the daily press, have amounted approximately to only \$115,000,000, or a little less than double what the Pacific Northwest States, including British Columbia, expect to receive this year.

From reports received from the different sections of Canada, and from railway, steamship, and motor travel figures, there is good reason to believe that a conservative estimate of the value of tourist traffic into Canada for the past year would total not less than \$100,000,000. This means that it has already become one of our most important sources of wealth. As shown in previous reports when we bring money into the country by tourist travel it is just the same as if we exported goods to that amount and received money in return with this exception that we have sent nothing out of the country that leaves our capital stock diminished. Now compare the value of our four highest exports during the fiscal year 1921-22 with our export of scenery and they will be seen to rank as follows:—

Agricultural and vegetable products.. . . .	\$317,578,963
Wood and paper.. . . .	179,925,887
Animal products.. . . .	135,798,720
Foreign tourist travel.. . . .	100,000,000
Iron and its products.. . . .	27,312,272

That means that what we may call our export of scenery must already take fourth place in our foreign trade. It will be observed, too, that its total value amounted to only a little less than one-third of the value of our farm and garden products, while it is considerably more than half the value of our total forest products both raw and manufactured.

In the twelve months ending March 31, 1922, Canada's total exports amounted to only \$740,240,680, as against \$1,189,163,701 in 1921, and \$1,239,492,098 in 1920. That is a decrease in foreign business of approximately \$450,000,000 in one year. This is an enormous sum but it is less than the annual revenue of France from tourist travel in the years immediately preceding the war, and is approximately equal to the amount formerly spent by Americans in foreign travel each year. If under these circumstances we could attract to Canada a tourist traffic only four times what we are now receiving, it is clear that we should have achieved the same result so far as our national prosperity is concerned. And probably no one would deny that there is no part of Canada which is not capable of attracting four times as many tourists as it had last year. Organized publicity has brought about such results already in special districts. The growth of travel to the Pacific Coast States, as mentioned above, is now eight times what it was five years ago and similar results have been secured in California and other places that have turned their attention to an organized development of the industry. It is reported that at the present time from 30 to 40 per cent of all the gold in the world is stored in New York vaults. Part of surplus wealth of this kind can be drawn into circulation only through the purchase of luxuries. Now Canada manufactures few luxuries which she can export but she possesses other things that are equally valuable. Her scenery, her romance, her summer, and even her winter climate, her big game and wilderness areas can all be made to serve as a magnet for foreign gold. It is impossible, too, to say to what limits an industry, that caters to a universally desired pleasure, may be developed. Twenty years ago the motor-car was practically unknown. To-day over ten billion dollars of private money is invested in cars in the United States alone and the annual upkeep must amount to hundreds of millions. The desire for travel is almost equally universal and in fact it is often one of the reasons behind the desire to own a car.

GROWTH OF MOTOR TRAVEL

The astonishing growth of motor travel into Canada has been one of the surprising features of the past year. According to figures collected by the Department of Customs the number of cars entering Canada during the calendar year has jumped from 93,300 in 1920 to 617,284 in 1921; of these 615,074 registered for less than one month, 2,211 for more than one month and less than six months. The

entries by provinces were: Nova Scotia, 223; Prince Edward Island, 22; New Brunswick, 1,826; Quebec, 43,264; Ontario, 537,183; Manitoba, 8,020; Saskatchewan, 427; Alberta, 363; and British Columbia, 25,957. This shows that we have entered upon a new phase of the tourist industry. The wide distribution of profits from high prices during the war brought the automobile within reach of thousands of skilled workmen, farmers, and small tradesmen, and with it came the possibilities of travel. The thousand-mile journey has now become a commonplace. It is only necessary to build good roads, to provide adequate accommodation and to advertise the attractions of any district sufficiently and the travel will come.

There is one other consideration with respect to tourist travel that is not always recognized and that is its value as a forerunner of permanent settlement and financial investment. In an undeveloped country like Canada it is of inestimable advantage to have people from foreign countries touring through it and gaining an idea of its rich undeveloped possibilities, its great resources and its attractiveness as a place in which to live. Tourist travel, in fact, is one of the best immigration agencies, as it is also one of the best methods of attracting foreign capital, and a policy looking towards its development appears worthy of consideration along with policies of immigration or trade.



OILED SECTION OF ROAD
(Near Canmore, Banff-Windermere highway)

It is increasingly evident that other countries are coming to regard tourist travel seriously as an industry and are taking official steps to encourage it. Reference has been made before to the French Office of Touring and to the attitude of Italy in this regard. A pamphlet received from the Information Office for Tourists located at the Hague shows that action is also being taken by Holland. The bureau in question is supported by the Government and under its direct supervision. It plans tours throughout Holland, helps lovers of art to see the wonderful Dutch galleries, takes the artist to the picturesque villages near inland lakes, procures sailing vessels or motor boats for those who wish to undertake a yachting cruise, engages reservations in hotels and trains, and provides maps, charts, and guides, all absolutely free of cost. The traveller is thus relieved of all the petty worries of travel

and knows in advance just how much his trip will cost. Service of this kind is of inestimable value to a tourist and it will probably not be many years until it will come to be adopted by all countries that are seeking to attract foreign travel.

BANFF-WINDERMERE ROAD

Construction operations on the Banff-Windermere highway were carried on throughout the year and the early completion of the road is now in sight. During the spring clearing was continued along the Kootenay and Vermilion divisions and grading was started in June. During the summer about 11 miles were graded from the north end, the road being completed to within a mile of Vermilion crossing. From the south, grading was carried out from the end of the old British Columbia construction to Kootenay crossing, a distance of about 17 miles, so that during this season a total of about 28 miles of graded road was completed. The truss bridges



VERMILION CROSSING

The Banff-Windermere motor highway, Kootenay National park

at Vermilion crossing and Hawk creek, which had been partially completed the previous year, were finished. Clearing of the surveyed line was completed during the winter of 1921-22 and extra clearing of burnt-over timber carried out on the south end of the Kootenay division. On the Sinclair divisions portions of the road built by the Government of British Columbia through solid rock were widened. It is expected that this road will be ready for travel by June, 1923, or a year sooner than called for by the contract made with the British Columbia Government. The commissioner went over the road during the past summer by motor and horseback and was much impressed with the wonderful scenic attractions and the judgment shown in its location. The grandeur and beauty of this section of the Rockies can scarcely be surpassed, particularly as one approaches the beautiful Sinclair canyon where the road winds between towering walls of red rock. The area is rich in game of many kinds: sheep, goat, moose, elk, and bear are numerous and rapidly increasing. Indeed, the wild life along this road will undoubtedly prove one of its greatest

attractions. To see these beautiful creatures moving fearlessly about, often feeding within camera shot of a motor car, is a unique and delightful experience.

As no hotel accommodation exists between Banff and Invermere, camp sites will be located at suitable points and equipped with stoves and other conveniences. The erection of specially designed warden's cabins, adapted also as shelter homes and social rooms will probably be considered later.

OTHER ENGINEERING AND CONSTRUCTION WORK

Rocky Mountains Park.—The most important work in the Rocky Mountains park was the completion of the new steel and concrete bridge over the Bow river at Banff. This is a very artistic structure that adds greatly to the appearance of the town and provides better facilities for the rapidly increasing motor traffic in the park. Several other bridges were constructed at different points, including a highway bridge over the Cascade river and trail bridges over the Spray river at two points.

Work was continued on the construction of the new 18-hole golf links at Banff and by the close of the year good progress had been made towards its completion. The new water-mains have been of great service in keeping the fairways in good condition.

Jasper Park.—A cement floor was laid on the new steel highway bridge over the Athabaska river, near Jasper, and the "fill" for the approaches to the bridge was completed. A new trail was constructed from Sunwapta to Southesk via Brazeau lake, work being carried out from each end towards the centre. At the end of the year only some eight miles remained unfinished. The old bridge over the Athabaska was dismantled. In addition maintenance work was carried out on the various park roads, trails, waterworks, and telephone lines.

Waterton Lakes Park.—Two timber bridges were constructed one over Cameron creek and one over Pass creek. Winter work was carried out on the Waterton-Akamina pass road, chiefly clearing and solid rock excavation. An ice-house with cold storage rooms was erected in the townsite. The construction of a new nine-hole golf course was commenced and good progress made, so that the course will be in a playable condition during the summer of 1922.

Yoho Park.—The approaches to the new bridge over the Kicking Horse river at Field were completed and the bridge painted. As the old Canadian Pacific railway grade in the vicinity of the Ottertail river had been abandoned as a highway, the old high trestle crossing the river was dismantled and the timber salvaged for use in construction purposes at various points in the park. Construction of a new bridge over the Kicking Horse river on the Leancoil trail was also commenced before the end of the year.

Revelstoke Park.—The maintenance of the motor road up Mount Revelstoke involves each year considerable repair work owing to the damage done on the mountain side by melting snows. By keeping the ditches and culverts well open while the snow is melting it is found that washouts can be averted and as soon as spring opens these are at once cleared. It is hoped to complete construction work on the motor road to the summit during the coming summer. As soon as the west road from Revelstoke to Sicamous and Vernon is completed Revelstoke will have communication with the greater part of interior and southern British Columbia, which will result in very much increased motor traffic to this park.

The erection of a shelter house on the ski hill provided a much needed convenience. The ski tournament held at this park each year is among the most notable on the continent and attracts professionals and amateurs from all parts of America.

Kootenay Park.—Arrangements were made during the year for the topographical survey of the new Kootenay park. Much of this territory is virgin country and the geographical data in connection with it are very incomplete.

BUNGALOW CAMPS

The bungalow camp established last year at Wapta lake by the Canadian Pacific Railway Company proved very popular. It is becoming increasingly evident that this class of accommodation meets the requirements of a large part of the travelling public, providing as it does plain but comfortable sleeping quarters and an excellent table. This simple accommodation, in touch as it is with the actual out of doors, is preferred by many genuine nature lovers and people of refinement. It is expected in the near future similar accommodation will be provided in Jasper and Waterton Lakes parks.

MOSQUITO CONTROL AT BANFF

The interesting work, which was begun last year, looking towards the extermination of mosquitoes in the vicinity of Banff, was continued during the summer. In view of the extraordinary differences in the breeding habits of these insects it was seen that in making any attempt at competent control it was necessary to have an expert and intimate knowledge of the species concerned and of the local conditions. The services of three young entomologists, university students, were secured, and they began work on May 15 under the direction of Mr. N. B. Sanson, curator of the Banff museum. From that date to the end of June they kept watch on the breeding areas, spraying with oil wherever larvæ were found and collecting specimens for identification. It was found that the most important species to combat in the neighbourhood of Banff is the *aedes*, members of which breed in flooded areas and when hatched out into adults may travel as far as four or five miles. The eggs are laid in the water and when the latter evaporates or drains off they are left on the sod. Before hatching they have to become dry and then, on the land being reflooded, will hatch out. Experiments show that eggs will remain fertile for as long as six years. During the larva and pupa stages the insects must breathe through the surface of the water and a thin film of oil spread upon the surface will cause suffocation inside of a maximum time of four hours. The areas flooded by the Bow and Echo rivers and Vermilion lakes were given attention during the first week following the rise of water, and systematic oiling operations carried out. Later a foreman and three men were set to work clearing out the heavy willow growth to make trails to and around the sloughs, and some filling in and draining, as well as dyking on a small scale, were undertaken.

In June Mr. Arthur Gibson, Dominion Entomologist, and Mr. Eric Hearle, who is in charge of the mosquito laboratory in the Fraser River valley and one of the foremost mosquito experts on the continent, visited the park, inspected conditions both at Banff and Lake Louise, and made a number of valuable recommendations. The marked decrease in the number of mosquitoes during the tourist season brought very favourable comments from visitors and it is the intention to carry on the work more extensively next season.

FISHING

Thanks to the excellent work being done by the Department of Marine and Fisheries in the maintenance of hatcheries, the fishing in park lakes and streams continues good, and, particularly in the parks on the east slope of the Rockies, forms one of our most important tourist attractions. Waterton Lakes park probably ranks first as a fishing resort, the lake itself and practically all its tributary streams abounding in trout of a good size and quality. Lake trout, too, the largest game fish found in the parks, specimens of which are sometimes taken weighing as much as 50 pounds, are found in Waterton Lakes park. As is well known, the lower Waterton lake extends across the boundary into the United States Glacier National park, so that it becomes an international fishing water. Last year fry were again received from the United States park and deposited in the upper waters of the lake, thus benefiting the fishing in both parks.

DEPARTMENT OF THE INTERIOR

About half a million fry were liberated in the waters of Rocky Mountains park from the Banff hatcheries during the season: 300,000 rainbow and cutthroat trout in July and 200,000 of the same varieties in August. The Spray Lake hatchery had one of the best seasons in its history, the return of spawning cutthroat being greater than ever before.

RECREATIONAL AREAS

An interesting phase of recent development is the creation of so called "recreational areas." These are reservations of Crown lands which are adapted for public use and enjoyment for summer resort and recreational purposes but which do not possess scenery of sufficient importance to justify their creation as national parks. They are usually lands about a lake, which are unfit for agriculture and so have remained unpatented, but which are adapted for summer cottage sites and recreational purposes. In response to strong local demands investigations have been made of several such lakes in the Prairie Provinces and their reservation is now under consideration.

REVENUE

The total revenue for 1921-22 was \$78,907.21. While this was \$2,214.89 less than the previous year, the apparent decrease is accounted for by the fact that the revenue for 1920-21 contained two unusual items: the \$1,341.15 which resulted from the sale of muskrat skins at Point Pelee park and \$3,975.70 derived from the sale of buffalo heads and robes at the Montreal fur sales. If these two items were omitted from the previous year's returns the past year would show a gain of \$3,100.96.

TIMBER PROTECTION

The betterment of the patrol system, increased telephonic communication, improvement of the mechanical fire-fighting apparatus, and the detailed instructions given the warden service in the use of the portable fire-engines developed by this branch, had a good deal to do with the lower acreage of timber destroyed by the season's fires. A comparative statement of the season of 1921 with that of 1920 shows:—

	1920	1921
Number of fires.. . . .	94	70
Acres damaged.. . . .	6,003 acres	2,614 acres
Cost of extinguishing.. . . .	\$7,585.93	\$8,296.26

The average number of wardens for the year was 52, compared with 48 in 1920, and their patrol covered 194,854 miles compared with approximately 141,700 miles in 1920.

A new and improved model of the small portable gasoline fire-pump, designed by the Canadian National Parks Branch for fighting forest fires in the parks, has recently been developed. These units, which were introduced a few years ago, have proved themselves so successful that they have been adopted by practically all organizations engaged in forest protection work in Canada and by many in the United States as well. Seven of these units were recently used in one of the parks in relays pumping through one to the other from a mountain stream situated a mile and a quarter from the scene of the fire and excellent results were secured.

The forests of the National parks are now protected by thirty of these engines, which are modelled along the lines of the gasoline marine motor but so reduced in bulk and weight as to be readily portable on pony back over the mountain trails, by gasoline speeders along the railways or over the 400 miles of motor highways in the parks by automobiles.

Construction work during the year included 208 miles of trails, 109 miles of telephone lines, and 8 cabins. The telephone line from the city of Revelstoke to the cabin at the top of the mountain was completed. An important inauguration also

was the construction of the telephone line running from the Red Deer cabin No. 18 in District 10, Rocky Mountains park, to the Forestry cabin on Red Deer river.

No direct aeroplane patrol work has been carried out in the Canadian national parks except in Waterton Lakes park, but during the season of 1921 a number of fine oblique photographs were taken of the different main valleys to show the water and timber areas in Jasper park.

Twelve sets of artillery field telephones, useful as temporary fire lines or on construction work, were distributed among the parks.

The fire protection work included the ploughing of 139 miles of fireguard at Buffalo park and 19 miles at Elk Island park. A volunteer fire brigade was organized in Field, making the third of such bodies now in the parks, brigades at Jasper and Banff having already been established. Thirty camp stoves of cast iron and concrete body were distributed among Banff, Jasper, Waterton Lakes and Yoho parks to meet the outdoor cooking requirements of tourists and campers.

STATEMENT OF FIRES IN CANADIAN NATIONAL PARKS, SEASONS, 1920, 1921

Date	Name of Park	Unknown	Campers	Railway	Lightning	Other Causes	Total	Cost of Extinguishing
1920	Rocky Mountains...	2	21	8	2	1	34	\$ 4,425 46
	Jasper.....		8	39			47	840 22
	Waterton.....		1				1	50 70
	Glacier.....			1	5		6	1,648 59
	Yoho.....		1	1	3		5	620 00
	Kootenay.....		1					
		2	32	49	10	1	94	\$ 7,585 93
1921	Rocky Mountains...	3	15	7			25	\$ 1,528 12
	Jasper.....	1	5	27			33	1,336 59
	Waterton.....	1	1			1	3	4,782 72
	Yoho.....				1		1	70 90
	Glacier.....				1		1	43 75
	Kootenay.....		1		1		2	336 10
	Buffalo.....		2				2	195 03
	Elk Island and Point Pelee.....					3	3	3 05
		5	24	34	3	4	70	\$ 8,296 26

TOWN PLANNING

In 1921 the town planning office previously a part of the Commission of Conservation was transferred to the Canadian National Parks Branch. By this transfer the services of the town planning division were more intimately available for the planning of community life within the limits of the national parks and for the better provision for the needs of tourists, while at the same time the educational work of the division could proceed as in the past.

The educational work of the branch which has been carried on in Canada during the past seven years with such good results was also continued. Lectures were given by members of the staff at the universities of Montreal and Toronto and at various places where civic authorities are contemplating town planning improvement. Exhibits of town planning material were provided for various conferences and public meetings and lantern slides and lectures sent to distant parts of the Dominion from coast to coast. Where there is no provincial town planning executive or no provincial town planning act, private citizens who are desirous of improving the methods of town development usually write to Ottawa, and advice and literature are sent to them. Much assistance has been given to the Journal of the Town Planning Institute of Canada, both in preparation of literary material and in the provision of plans illustrating the movement and advantages of town planning methods.

Projects

Among other projects are the following:—

Rocky Mountains Park.—Plans for the improvement of the general layout, street system, and buildings; designs for the grounds of the various public buildings and general planning at Canmore; plans for the general improvement of Banff and detailed studies for the improvement of Banff avenue, layout of an automobile camp on a fairly large scale for Banff, with the buildings that will be required, lighting, water, and drainage systems; layout of automobile camps at lake Louise and on the road from lake Louise to Banff.

Kootenay Park.—Layout of automobile camps on the Banff-Windermere road; layout of townsite at Radium Hot Springs together with plans of buildings that may be required there, *e.g.* swimming pool; etc.

Jasper Park.—Layout of townsite at lac Beauvert together with designs for buildings required—golf club house, bath house, etc.; plans of a layout scheme for the various government buildings at Jasper, some of which are already erected, *e.g.* garage, stores, stables, etc., layout of a townsite in connection with Miette Hot Springs.

Waterton Lakes Park.—Revised layout for business section, new residential areas, auto camp, plans for community building, etc.

Elk Island Park.—Layout of lots for summer cottages with plans for buildings that may be required.

Brereton and Norah Lakes.—Layout of lots for summer cottages.

Historic Sites.—Plans for the improvement of the various historic sites.

PROTECTION OF ANIMAL LIFE IN THE PARKS

There is perhaps nothing in connection with the work of National parks that is a cause for more satisfaction than the steadily increasing abundance of practically every form of wild life. It offers a demonstration of the value of sanctuaries more impressive than any arguments, and shows how quickly a species will re-establish itself under adequate protection as well as how readily wild animals will accustom themselves to the presence of man, once they are convinced there is nothing to be feared. The decrease of larger game mammals throughout much of the continent makes the abundance and fearlessness of the larger mammals in the National parks an increasing attraction to tourists and this attraction is bound to increase as the game in unprotected portions of the country diminishes or is driven off to more remote sections. Indeed the time may not be very far distant when it will be only in such protected reserves that some of our larger mammals will be known to future generations. In this connection it is interesting to note the observations of Dr. Henry Fairfield Osborn, President of the American Museum of Natural History, at a meeting of the American Society of Mammalogists in New York City in May last. Mr. Osborn is reported as saying that we are now witnessing the close of the age of mammals, an elimination which was begun by man about 400,000 years ago but which has become acute in recent years. "Nothing in the history of creation", said Dr. Osborn, "has paralleled the ravages of the fur and hide trade which now, with the bone fertilizer trade, threatens the entire vertebrate kingdom." Other distinguished mammalogists present predicted that it will be only a matter of years when wild game will be seen only in museums and picture books. In view of these gloomy predictions it is doubly gratifying to witness the steady increase of wild life in the parks and to note that the natural overflow is gradually re-stocking the adjacent districts. These areas seem likely to be in the future the most important museums and schools of natural history, and it is a matter for satisfaction to realize that they must become as time goes on increasing sources of delight and interest to the student or lover of wild life.

The increase in bighorn sheep and Rocky Mountain goat in all of the mountain parks is everywhere apparent. While it is obviously impossible to form an accurate estimate of their numbers without a careful survey, it is interesting to note that the superintendent of Jasper park estimates that there are now 10,000 bighorn and 5,000 goat in that park where ten years ago these animals had been almost exterminated. The numbers in Banff park must also reach a large figure. The elk herd procured from Yellowstone park in 1920 has done splendidly and practically doubled in numbers. Deer are found everywhere in abundance and moose are steadily increasing.



A MEAL-TIME VISITOR

At Gibson's Camp, Kootenay National park

Buffalo.—At the close of the fiscal year the total number of buffalo in the parks was 6,439; of these 6,146 are in Buffalo park, 280 in Elk Island and 13 in the small exhibition herd at Banff. The increase for the year was 1,102. The proposed slaughter of surplus males has not yet been undertaken but it has become imperative that action should be taken in this connection in the immediate future as the present range is overstocked.

The addition of 19 square miles to Elk Island park brings the present area of this fenced animal reservation up to 35 square miles. The extension takes in all that portion of the Cooking Lake forest reserve lying north of the Edmonton-Tofield highway. The new area will not only provide additional grazing grounds for the

buffalo, elk, deer, and moose in the park but will supply further opportunities for recreation. Its proximity to the motor highway, too, will make it much more accessible to the general public and a large increase of visitors is expected as a result.

The abundance and fearlessness of many forms of wild life in this park are a constant source of pleasure to tourists. Fine big mallards will sit on a lake only 20 feet away from a humming motor and the sight of bands of elk moving freely through the open woodlands never fails to give delight.

Antelope.—The antelope herd at Nemiskam continues to thrive and, according to reports received from the caretaker, although no actual count has been made, is believed to number considerably over 100. The success of this experiment has led to a determination to establish other reserves of a similar nature, and two additional areas, one in southern Alberta, the other in the Medicine Hat region, will shortly be set aside and proclaimed national parks for the preservation of this species. There is no doubt that these sanctuaries are urgently needed if the antelope is to be preserved from extinction. The chief game guardian of Saskatchewan estimates that there are now only about 250 wild antelope left in the whole of that province. The number in Alberta, in the opinion of the provincial chief game guardian, is not more than 1,000. As is well known antelope disappeared several years ago from Manitoba. It is therefore evident that the species is now on the verge of extinction and unless immediate steps are taken must inevitably disappear. The efforts being made for their preservation in the Dominion sanctuaries are therefore of great interest and importance. It is perhaps too soon to say yet that the antelope can be saved but it is certainly encouraging to note the good results so far obtained in the Nemiskam reserve, which appear to indicate that they can be successfully bred in captivity.

Predatory Animals and Birds.—Coyotes are troublesome and it is necessary to keep up a continual war on these pests. The caretaker also reports that there is a species of eagle which he finds is nearly as great an enemy to the young antelope as the coyote. Two young antelope were caught and killed this spring in the reserve, both by eagles. Efforts to protect the herd from these birds will therefore be made.

Donations to Other Parks.—A number of donations of wild animal specimens from the parks was made including 6 Rocky Mountain sheep to the Zoological Society of New York and 12 Rocky Mountain sheep to the Bison range, Montana. Eight sheep will also be shipped to the State Game farm in South Dakota when weather conditions permit.

Farming.—The farms maintained within the parks for the production of feed for the animals continue to give good returns and are resulting in a substantial saving to the department. Farming operations are now carried on at Waterton Lakes park, Elk Island park, Rocky Mountains park and Buffalo park. At Rocky Mountains and Elk Island only haying operations are carried on, 56 tons having been put up in the former and about 350 in the latter. At Waterton Lakes park there were grown 967 bushels of oats and 74 tons of hay. The crop at Buffalo park was not quite so large as the previous year when the yield was exceptionally heavy, but it amounted to 9,200 bushels of oats, 180 tons of straw, 850 tons of hay and 35 acres of green fodder, which were estimated at a total value of \$22,712.

PROTECTION OF MIGRATORY BIRDS

The enforcement of the Migratory Birds Convention Act has been continued throughout the year and the great value of the new regulations in protecting the birds of the continent, which pass through Canada and the United States in course of migration, has been evinced by reports received from practically all sections of the country. While there are a few localities in which increases in migratory bird life have not been apparent, these it may be assumed have suffered because of some unfavourable local condition. Taking the country as a whole the reports show a

marked increase in bird life of many kinds. In some localities, it is true, misapprehension concerning the fundamental principle underlying the treaty still exists. It has been said that it favours the United States shooter, a belief which can arise only from an erroneous conception of the Act. In some cases it has been necessary to point out that no seasons for migratory waterfowl in the United States extend beyond January 31 in any year which means that the treaty has effectually stopped the destructive practice of spring shooting. To the stoppage of this practice and to the fact that the sale of migratory game birds is forbidden throughout most of the continent, the general increase in migratory waterfowl is undoubtedly due.

In the summer of 1921 an amendment was made to the regulations under the Migratory Birds Convention Act which brought into effect certain minor changes in open seasons, added some provinces to those in which the sale of migratory game birds was forbidden, and altered slightly the restrictions placed upon certain methods for capturing these birds.

The permanent organization for the enforcement of the Act throughout Canada has been kept at approximately the same strength and, in addition to the enforcement of the Act, the staff has engaged in continuous efforts through lectures, publicity, and in other ways to extend information concerning the value of birds and the need for their protection. In carrying on this work throughout Canada the staff has enjoyed the fullest co-operation with the provincial game departments and, except in provinces where the provincial law does not conform to the treaty, the actual enforcement of bird protection measures has been left largely in the hands of the provincial authorities.

One hundred and thirteen honorary game officers were appointed during the year, bringing the number of our honorary staff up to 1,722. Through the co-operation of the Forestry Branch of the Department of the Interior all forestry officers throughout the Dominion were also appointed honorary game officers and they are furnishing this office with important information concerning the value of the various forest reserves as breeding grounds for migratory waterfowl. The officers of the Marine and Fisheries Department stationed along the Atlantic coast and the officers of the Royal Canadian Mounted Police throughout Canada have also co-operated in bird protection work. As a result, too, of negotiations with the province of Alberta, the provincial authorities agreed to have their provincial officers act as honorary game officers under the Migratory Birds Convention Act.

Educational

Educational work with regard to the meaning and value of the treaty was again carried on. Further editions of previous pamphlets on bird protection were published during the year, the total distribution of pamphlets of all kinds amounting to 125,813. Publicity concerning the shooting seasons and other bird protection matters was obtained through the distribution of 34,661 posters. The Post Office Department co-operated with the branch by having one of the posters regarding open seasons under the Migratory Birds Convention Act placed in each post office in Canada.

The most important bird publication of the year was a pamphlet entitled "Lessons in Bird Protection". Eighty thousand copies of this pamphlet, sufficient to supply each school teacher in Canada with one copy, were published and distributed. This publication has now been authorized for use in every school in Canada.

Eighty-five lectures on bird protection were given by members of the permanent staff during the year and lantern slides and other material were furnished to honorary officers and others so that they might deliver lectures on this subject. Moving picture films of bird life were also distributed and proved an excellent publicity medium.

Short articles in connection with the work were also written by many of the game officers of the branch as well as by the honorary game officers. Mr. A. G. Lawrence,

one of the western honorary officers, began the publication in a Manitoba paper of a weekly column on birds. The preparation of material for a weekly column of bird news involves a great deal of labour on the part of Mr. Lawrence, but its educational influence is undoubtedly far-reaching and beneficial.

Copies of the late Dr. Hewitt's book "The Conservation of Wild Life in Canada," were sent to all honorary game officers.

Two exhibits of protected birds were prepared for display during the winter carnival at Ottawa in January last. One of these, through the courtesy of the Canadian National Railways, was displayed in the window of their main offices on Sparks street. It consisted of about 20 specimens of mounted birds, named in English and French, as well as a large seizure of gull plumage. A poster explained that all these had been seized for illegal possession and as the display attracted a great deal of attention it is believed that it served to educate a great many people as to some of the birds which the general public does not yet appear to realize are protected under the Migratory Birds Convention Act. This exhibit was later taken to Montreal and shown in the window of the Canadian Pacific Railway Telegraph office there.

Following the decision of the Department of Justice that Indians in Canada are amenable to the provisions of the Migratory Birds Convention Act, a special poster has been prepared to acquaint Indians in the different parts of Canada with the provisions of this Act.

The National Association of Audubon Societies has agreed to the extension of its Junior Bird Club organization to Canada. This involves a very considerable expense to the association, and the branch was much gratified to learn of the successful termination of negotiations which had been instituted to bring about this desirable end. The formation of bird clubs in the schools and the valuable publications, including "Bird-Lore," distributed by the association, form one of the best methods of educating children with respect to the importance of bird protection, and the extension of the work to Canada is bound to result beneficially. The various provinces have been acquainted with the result of negotiations for the establishment of these bird clubs in Canada and, with few exceptions, the departments of education have approved of the plan.

As part of its work for the preservation and protection of valuable bird life the branch has been encouraging the building of bird-houses and early in the present year honorary game officers were written to and asked to organize bird-house competitions among the children of their neighbourhood. In Ottawa and some of the larger cities the manual training teachers have directed the boys in the building and designing of bird homes and more than 2,000 bird dwellings have been built this spring in the city of Ottawa alone. A number of bird-houses were also made and erected in some of the national parks.

One of the most important aids to the study of bird life lies in the work of bird banding which is now being officially directed from the Biological Survey at Washington, D.C. A considerable number of people in Canada were already carrying on this work but the desirability of having workers in every part of the country suggested that the undertaking should be extended if possible. A circular was accordingly drafted and sent to all honorary game wardens and other persons interested in bird protection explaining the work and suggesting co-operation.

Bird Sanctuaries

The creation of bird sanctuaries, which is an indispensable part of the work of bird protection in Canada, is going steadily forward.

Following investigations by the chief federal migratory bird officer for Ontario and Quebec, who studied conditions on the north shore of the gulf of St. Lawrence during the summer of 1921, a recommendation has been made that ten bird sanctuaries be established on this coast. These have been selected with great care and should serve as valuable refuges for the important bird life of this region. This matter is still under advisement but it is hoped that early action will be taken.

The bird sanctuary at Last Mountain lake, Saskatchewan, which has been under preservation since 1887, was brought under the Migratory Birds Convention Act by an Order in Council during the summer of 1921.

A preliminary survey of provincial game reserves in the province of Manitoba was also made, and the report on the matter is at present before the department.

It is interesting to note that the existence of the bird sanctuary on Bonaventure island near Percé, Gaspé county, Quebec, is proving a noticeable attraction to tourists. During the summer of 1921 numbers of prospective guests had to be turned away because of lack of accommodation, although the principal hotel in Percé was considerably enlarged last spring. The residents regard the sanctuary as very desirable and it is the source of a considerable income to those living in the vicinity, because of the money spent there each summer by visitors attracted by the bird colonies.

As the public learn the necessity for the creation of bird sanctuaries various objections to them became less frequent. The sportsmen are already fairly well acquainted with the necessity and desirability of setting aside breeding grounds for game birds, but this necessity is not so generally understood by the farming communities. With a view to acquainting persons in Western Canada, who may apply for permission to use sanctuary lands for various purposes, with the need for bird sanctuaries, a circular was drafted and a copy sent to all such applicants, making it clear that without these sanctuaries the supply of migratory water-fowl in the future would be seriously reduced. The continued reduction of the marsh and lake areas in the western provinces of Canada, because of the extension of agriculture and drainage operations, cannot but have a serious effect upon the supply of water-fowl in the future.

Arrangements have been completed with the Natural Resources Department of the Canadian Pacific Railway for the creation of a bird sanctuary on the property of the railway at lake Newell, Alberta.

Public Shooting Grounds

While the policy of the branch is to use every effort to secure the protection of migratory wild-fowl and to set aside for this purpose available sanctuaries for breeding grounds, it is also of the opinion the public should have access to a fair and reasonable share of the game. It is, therefore, recommending the creation of public shooting grounds where any citizen of Canada may have the right to hunt.

Several of the provincial governments have made recommendations concerning areas which they consider should be set aside as shooting grounds of this kind, and already certain of these areas have been inspected by officers of the branch. In this connection the province of Alberta recommended the setting aside of 57 lakes, while the province of Saskatchewan recommended the setting aside of 15 lakes. The movement is one that has received the almost unanimous support of sportsmen, who recognize that if the two policies are carried out—(1) adequate protection by sanctuaries, and (2) public shooting grounds where hunting is permitted under whatever restrictions the game supply warrants—there will be permanent shooting for every one.

Prosecutions

During the year the branch took court action in 86 cases for violation of the Migratory Birds Convention Act. Convictions were registered in 79 cases, in 6 of which the sentence was suspended; 4 cases were dismissed, 3 were withdrawn. The total fines imposed amounted to \$865, while 6 guns, 1 boat, 54 bird specimens and 7 pieces of miscellaneous equipment were confiscated.

At the request of the Association for the Protection of Fish and Game in the province of Quebec the supervisor of wild life protection spent two days in Montreal attending court and giving expert evidence as to the identification of some thirty shore birds that had been seized by the officers of the association in carrying out the provisions of the provincial game laws.

Permits and Licenses

One hundred and sixty-three permits were issued allowing the holders to take birds for scientific purposes and 21 permits allowing the capture of protected birds for banding purposes. The following numbers of permits allowing the capture and possession of migratory birds for propagating purposes were issued during the year: 7 allowing the possession of migratory birds in British Columbia, 23 allowing the possession of migratory birds in Ontario, and 33 allowing the capture and 175 allowing the possession of migratory birds in the other provinces of Canada. Four permits allowing the killing of migratory birds found injurious to fishing interests and 4 allowing the killing of migratory birds found injurious to agricultural interests were issued from this office during the year. In addition, 68 taxidermists' licenses were issued.

Copies of the permit principles which form part of each of the scientific permits issued by this branch are being distributed as a circular with each scientific permit issued by the state of California, due credit being given to the Department of the Interior, Canada.

Advisory Board on Wild Life Protection

During the year this board held five meetings. It now includes representatives from seven departments, the membership having been increased during the year by the addition of the following persons: Mr. Arthur Gibson, Dominion Entomologist, Department of Agriculture; Colonel A. B. Perry, C.M.G., Commissioner of the Royal Canadian Mounted Police; Dr. E. E. Prince, Dominion Commissioner of Fisheries, Department of Marine and Fisheries; and Mr. O. S. Finnie, B.Sc., D.L.S., Director of the Northwest Territories Branch, Department of the Interior. The Supervisor of Wild Life Protection, who had been acting secretary of the board, was appointed secretary.

Importation of Foreign Species

At the instance of the branch the Customs Tariff respecting the importation of birds and mammals was revised by the addition of the following to the prohibited list:—

(1) Aigrettes, egret plumes, or so called osprey plumes, and the feathers, quills, heads, wings, tails, skins or parts of skins of wild birds either raw or manufactured. This provision does not apply to:—

- (a) the feathers or plumes of ostriches;
- (b) the plumage of the English pheasant and the Indian peacock;
- (c) the plumage of wild birds ordinarily used as articles of diet;
- (d) the plumage of birds imported alive, nor to
- (e) specimens imported under regulations of the Minister of Customs for any natural history or other museum or for educational purposes.

(2) Common mongoose or mongoose of any kind; common mynah, Chinese mynah, crested mynah, or any other species of the starling family; Java sparrow, rice bird, nutmeg finch or other species of the weaver bird family; European chaffinch; and great titmouse.

General

A number of petitions were received from different parts of Canada including Alberta, Saskatchewan, Quebec, and Nova Scotia, asking for the suspension or modification of regulations under different Acts, federal or provincial, respecting bird sanctuaries, protected birds, open seasons, or the whole or partial opening or closing of certain areas to hunting and fishing. In every case the petition was given the most careful consideration and the reasons for the decision arrived at explained to the petitioners. Some matters were still under advisement at the end of the year.

NORTHWEST GAME ACT

On 1st January, 1922, the administration of the Northwest Game Act passed from the National Parks Branch to the newly created Northwest Territories Branch. The transfer included the administration of the Wood Buffalo herd near Fort Smith, Northwest Territories, and the reindeer herd at Lobster Bay, Quebec, a herd which is to be used for developing the Northwest Territories. Assistance was given the new staff in handling the work and acquainting them with procedure.

Licenses and Permits.—Licenses under the Northwest Game Act have been issued during the year as follows:—

Hunting and Trapping: Residents, 113; non-residents, British, 17; non-residents, non-British, 10.

Trading and Trafficking: Residents, 160; non-resident, British, 2; non-resident, non-British, 1. The revenue received from these licenses amounted to \$2,151.

The following is a statement of the game taken in the Northwest Territories under the Northwest Game Act licenses as shown by returns received during the fiscal year 1921-22, with the average value and approximate total value of the furs secured:

Animal	Hunting and Trapping	Trading and Trafficking	Totals	Approximate value of pelts	
				Average	Total
	No.	No.	No.	\$ c.	\$ c.
Moose.....	34	22	56		
Caribou.....	371	431	802		
Deer.....	40	30	70		
Mountain sheep.....	6	5	11		
Mountain goat.....	4		4		
Otter.....	9	54	63	24 25	1,527 75
Beaver.....	126	1,908	2,034	15 00	30,510 00
Marten.....	847	4,344	5,191	37 50	194,662 50
Fisher.....	6	12	18	48 75	877 50
Mink.....	647	4,012	4,659	12 00	55,908 00
Muskrat.....	7,970	79,941	87,911	1 60	140,657 60
White fox.....	3,001	12,684	15,685	37 50	588,187 50
Wolves.....	188	149	337	7 50	2,527 50
Wolverines.....	77	114	191	6 00	1,146 00
Lynx.....	23	94	117	18 00	2,106 00
Ermine.....	1,339	6,181	7,520	85	6,392 00
Bears.....	44	702	746	12 00	8,952 00
Skunks.....	17	32	49	3 60	176 40
Foxes.....	229	1,036	1,265	15 50	19,607 50
Blue fox.....	1	8	9	90 00	810 00
Red fox.....	2	5	7	15 50	108 50
Cross fox.....		5	5	35 75	178 75
					1,054,335 50

The wolf bounty paid during the year amounted to \$3,320, covering payments of \$20 each for 166 wolves.

There have been two convictions for violation of the Northwest Game Act during the year. Fines amounting to \$150 were imposed and 5 white fox skins seized.

Reindeer Herd.—The reindeer herd at Old Fort, in the province of Quebec, has been cared for as usual by a staff consisting of a supervisor and three men. The herd according to the latest returns consists of about 167 animals all of which, the supervisor reports, are in good condition.

PROPOSED EASTERN PARKS

The great benefits accruing from the National parks make it seem more and more desirable that these should be established more generally throughout Canada. As has been pointed out in previous reports it is especially important that reservations for public enjoyment should be made within reach of our large centres of population. These would be undoubtedly of great benefit now but they are bound to be of immensely greater value as our population increases and the great hinterland of Canada disappears. Throughout Ontario and the eastern provinces there are still wilderness areas that are specially adapted for recreational purposes and that could be acquired now and set aside at slight expense. If considered only as an attraction to foreign tourists and a means of disseminating tourist revenue more widely throughout the country they would be eminently worth while. But their greatest value and the most important reason for setting them aside must be their benefit to Canadians themselves. Deep down in every man is the craving for the beauty of nature and for the freedom of life in the out of doors. The cramped life of city workers, their insufficient opportunities for vigorous play in the open are resulting in a lowering of vitality that must in the end weaken the fibre of the race. Mr. Herbert Hoover in a report to the Federation of American Engineers, recently pointed out the immense waste due to preventable diseases. He estimated the economic loss on this continent at over three billions, three hundred millions, approximately two billions of which is among those gainfully employed. The chief source of this loss arises from what is known as degenerative diseases, or diseases that are fundamentally due to a lack of vitality. The changes in human environment since the introduction of machinery have been so rapid and so sweeping that the human organization has not yet learned how to adapt itself to the new conditions. Yet the long history of the processes of nature shows that the species which fails to adapt itself to a changing environment inevitably goes under. There is no question of more fundamental national importance than the maintenance of the vitality and virility of the race and everything that contributes to that end must constitute a sound national policy.

As a first step in the programme of extension of national parks to the East it has been suggested that an area of sufficient size in the Laurentian region within reach of the large centres of population of Eastern Canada should be devoted to this purpose. The commercial benefit to the country would be very considerable on account of the tourist revenue that would result but the benefit to city workers who could reach a reservation of this kind in a few hours time would be of far greater importance.

It is also very desirable that areas should be set aside in the Maritime Provinces at an early date including some part of the beautiful sea coast and the original forest if any area where this remains can be secured.

PUBLICITY DIVISION

For the first time since the outbreak of the war it was possible to devote part of the appropriation to publicity. This was most necessary as our supply of literature of every kind was practically exhausted. A new and enlarged edition of the "Glaciers of the Rockies and Selkirks", by Prof. A. P. Coleman, was issued and distributed and an attractive descriptive guide to the parks along the Canadian Pacific main line entitled, "Through the Heart of the Rockies and Selkirks", was published. Material was also collected for other necessary publications including a small pocket information folder on the Banff park, intended chiefly for motorists.

During the Winter Carnival at Ottawa in January a large exhibit was prepared and placed in the entrance hall of the Central Station. It consisted of a large painted drop of Mount Edith Cavell, Jasper park, with a miniature forest in the

foreground disclosing a tepee beside a camp-fire which by an ingenious arrangement of chemicals appeared to give off real smoke. The reverse side of the exhibit was filled in by a large panel in which was inserted a beautifully painted transparency of the globe with the legend "Canada's National Parks the Playground of the World". This was flanked by two columns in which transparencies of striking park scenes were inserted. A fine specimen of a mounted buffalo completed the exhibit, which attracted a constant stream of visitors throughout the carnival and elicited much favourable comment.

A somewhat similar exhibit on a smaller scale was also sent to California and was shown in several of the principal coast cities and also in Vancouver. The interest in the Canadian National Parks created by this exhibit led to many inquiries and requests for literature and a number of parties including the Seattle Alpine Club arranged for a trip to Jasper National park as a result. Arrangements were also made whereby moving picture films of some of the mountain parks were shown at several of the Pacific coast theatres and the cordial co-operation of the officers of a number of prominent educational organizations and institutions, such as the California Audubon Society and the universities of California and Southern California, who arranged to show slides and plans of the Canadian parks in connection with their work, was secured.

Through the courtesy of the Exhibition Branch, Department of Agriculture, a special display of National Park scenes was also shown in connection with the Southern Florida Exposition at Tampa, thereby reaching another large section of the wealthy travelling class.

A series of illustrated lectures on the national parks was given in western Ontario during the late winter and spring months by Captain F. G. Forster, B.A., whose services were loaned to this Branch by the Soldiers Settlement Board. Captain Forster appeared before numerous educational and other organizations and showed films of the scenery, the wild life, the government buffalo herd at Wainwright and the bird sanctuaries, reaching, it is estimated, about 60,000 persons.

Several thousand lantern slides, with accompanying lecture notes, were set out in response to requests for prepared lectures from Canada, England, the United States and even Australia.

HISTORIC AND PREHISTORIC SITES

In connection with the work of marking and preserving historic and prehistoric sites of national importance, very satisfactory progress was made. One general meeting of the Historic Sites and Monuments Board, which acts in an advisory capacity to the department in connection with this work, was held at which all sites under consideration were reviewed with the object of defining their importance from a national point of view. Requests for the co-operation of provincial and local historical societies and associations which are interested in the preservation of Dominion landmarks met with favourable response and 40 of these are at present assisting in the national work.

An artistic design for a tablet, emblematic of Canadian history, has been purchased from the well known Canadian artist, Major Ernest Fosberry, R.C.A. These tablets are now being cast in bronze and will be used in connection with the marking of the above sites.

Cairns of attractive design, constructed of rough field stones, will be erected on several sites, to carry the standard bronze tablet. Where these are not suitable it is proposed to erect monuments. A competition for designs for suitable types of landmarks has been organized and is at present being carried out.

An educational campaign is being carried on relative to the various sites selected for action, with a view to stimulating public interest and creating a national consciousness with respect to the important events connected with Canadian history. Small pamphlets have been published and are available for distribution containing a history

of the sites of Fort Anne, Fort Lennox, Fort Chambly, and Port Dover. Others will be prepared and published as the work progresses. Copies may be had upon application to the Commissioner, Canadian National Parks, Ottawa.

The attention of the department has already been called to 610 sites and 82 have been selected to receive immediate attention. In the last report the steps that had been taken with regard to a number of these were reviewed. The following shows the additional action taken this year:—

*Maritime Provinces**

Louisburg, N.S.—Area approximately 90 acres. Ruins of old French fort, built in 1720-40, once the stronghold of France at the threshold of the continent, played an important part in the events which led to withdrawal of French rule from Canada. A survey of the site has been carried out by the Department of Railways and Canals which has furnished this department with the returns and plans and has promised to transfer to the control of this department an area of approximately 60 acres which is at present under their control.

Fort Edward, Windsor, N.S.—Area 27 acres. Transferred by Order in Council from the Department of Militia and Defence for preservation and restoration. The remains include the original blockhouse still intact and the ruins of the officers' quarters, recently partially destroyed by fire. A part-time caretaker has been appointed.

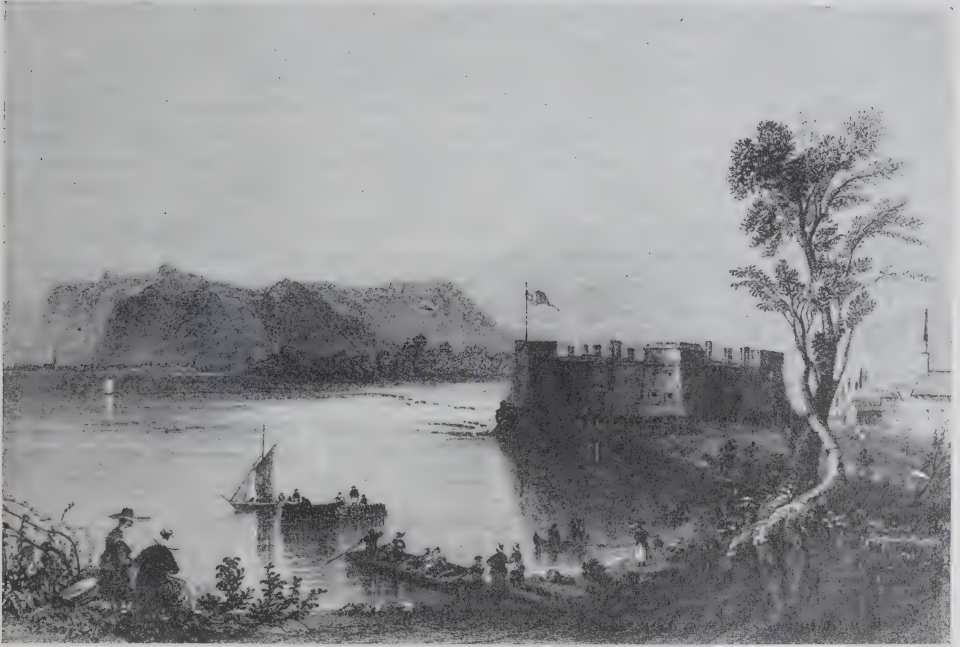
Fort Moncton, about one and a half miles from Fort Elgin, N.B.—The site is privately owned but as the proprietor is averse to disposing of it, it has been decided to place the memorial on the property owned by the Department of Marine and Fisheries, permission to this end having been secured.

De la Verendrye, Three Rivers, P.Q.—Pierre Gauthier de Varennes, son of the Governor of Three Rivers, was born at that place November 18, 1685, and saw service in France during the war of the Spanish Succession. He returned to Canada in 1712 under the name of la Verendrye, and established a fur trade on the St. Maurice river. In 1727, he was sent to take charge of a trading post at lake Nipigon and later undertook an expedition to discover what he called the "Pacific Ocean." In 1737 he built a fort at Portage la Prairie (Manitoba), from which several campaigns of exploration were carried out as far as the Rocky mountains. He was recalled in 1744 and died at Montreal in 1747, while preparing a further expedition to the Northwest. The remains of the foundations of his birthplace, situated in a beautiful park overlooking the St. Lawrence river, in the city of Three Rivers, are still visible and an appropriate tablet has been placed on one of the pillars supporting the iron railing which surrounds the park.

Fort Lennox, Ile-aux-Noix, P.Q.—One of the forts which formed the line of defence in the Richelieu valley. Remains consist of earthworks and a number of well preserved buildings. This was a massive old fortress situated about 12 miles below the outfall of lake Champlain in the Richelieu river and 10 miles from the Canada-United States border. It was built in 1609 by the French and famous in the conflicts of 1760, 1775, and 1812. It continued to be garrisoned until the withdrawal of the Imperial troops in 1869. On May 18, 1921, the site, comprising 5 islands and covering an area of approximately 210 acres, together with the buildings thereon, was transferred from the Department of Militia and Defence to the Department of the Interior for preservation and restoration. A custodian has been appointed to keep the property in order, and a museum opened in the fort wherein have been placed Indian relics, military buttons, bayonets, crests, badges, and plates, etc., silver and copper coins, etc. A pamphlet recently published containing a full history of the fort may be obtained upon application.

*Where historical details of site were given last year these are not repeated.

Fort Chambly, Chambly, P.Q.—One of the most venerable and picturesque ruins on the American continent. Built of palisades in 1665; burnt by Iroquois in 1702. Rebuilt of stone 1709-1711. Taken by the Americans in 1775, and interior buildings burnt in 1776. Restored in 1777; abandoned definitely in 1850. The site was transferred to the Department of the Interior in 1921. Steps have been taken to arrest the disintegration of the massive walls, and to redeem the cemetery from neglect and decay. A valuable museum containing articles of rare interest has been added to the fort. A pamphlet has been prepared containing complete data and information relative to the fort which may be secured upon application.



Fort Chambly, Que., in 1842

Fort Laprairie, Laprairie, Quebec.—Built in 1687, the scene of an unsuccessful attack by New England States Militia troops in 1691. The fort was a refuge for the inhabitants during the wars of 1687-1713. It is proposed to erect a monument and tablet in a public park known as Foch square, the necessary lease of occupation having been executed with the municipal authorities for the required area.

Duluth's Birthplace, Montreal, P.Q.—Corner of St. Paul Street and Place Jacques Cartier, Montreal. Site of residence of Daniel Greysolon Duluth, who died February, 25, 1710. One of the explorers of the Upper Mississippi, after whom the city of Duluth was named. A marble tablet has already been erected in commemoration of his services to the Dominion on the building at the intersection of the above streets.

Eastern Ontario

Glengarry House, Ont.—Site of the residence of Lt.-Col. John McDonnell, a noted pioneer in the settlement of the province, first speaker of the Legislative Assembly of Upper Canada and commanding officer of the 2nd Battalion, Royal Canadian Volunteers 1796-1801. Situated some 200 yards from the main highway, near Cornwall. Only ruins of walls remain. A cairn with a commemorative tablet is to be erected on the site, which has been donated for this purpose by Mrs. Annie J. Craig, the present owner.

Chrysler's Farm, Ont.—Situated about 5 miles east of Morrisburg, adjacent to the Montreal-Toronto highway. A monument consisting of an obelisk, on either side of which are two guns, was erected in 1895 by the Dominion Government to commemorate the victory over invading United States forces at the battle of Chrysler's Farm, November 11, 1813. This site, comprising an area of .23 acre which is enclosed with a chain fence, has been transferred to the control of this department by the Department of Militia and Defence.

Western Ontario

Mission of Ste. Marie II, Christian Island, Ont.—Situated near Penetanguishene, on an Ojibway Indian reserve. The Indians by resolution, have granted this department permission to carry on the proposed work of restoration, etc. This second fort, of stone, 72 feet square, flanked by four bastions, was burnt in 1649 by the missionaries after the burning of Ste. Marie I (which was on the Wye river near Midland, Ontario), and was evacuated on June 10, 1650. The ruins are to-day easily traceable though much overgrown with trees and brush. A memorial tablet will be placed on the site and the property cleared, drained and fenced.

Port Dover (Site of the Cross) "Cliff Site".—Situated in the village of Port Dover on a flat-topped point of land where the river Lynn enters lake Erie on property owned by the Grand Trunk Railway Company, which has signed a lease of occupation covering an area of .17 of an acre. An artificial stone cross, 16 feet high, has been erected to signalize the taking possession, in the name of King Louis XIV of France, of the lands of the lake Erie region by the Sulpician priests, Dollier and Galinee, on March 23, 1670, during the exploration of the Great Lakes. A commemorative tablet is to be placed on the pedestal of the cross and the site enclosed with an artistically designed fence. A pamphlet recently published containing a history of the site may be obtained upon application.

Port Dover, Ont., "Wintering Site".—Situated about three-quarters of a mile from the "Cliff Site" at the mouth of Black creek on property owned by Mr. A. Ansley. Site of the wintering place of Dollier and Galinee and seven other Frenchmen in 1669-1670. An area, on which a cairn with a commemorative tablet will be erected, has been donated to the department by Mr. Ansley.

Niagara Front

The historic sites of national significance along this front between lake Erie and lake Ontario have already been fairly well indicated by the erection of markers or tablets. It has been decided to carry out the completion of this work by taking action in regard to the following sites:—

Chippewa.—The most ancient village on the Canadian frontier. Situated on the south side of Chippewa creek in an open field near Niagara Falls. Scene of a desperate fight on July 5, 1814, between Canadian and United States troops, with serious losses of men on both sides. A monument is being constructed by the Niagara Falls Park Commission adjacent to the main boulevard on which one of the department's standard commemorative tablets will be placed.

Frenchman's Creek.—Situated near Bridgeburg. Site of the action of November 27, 1812, between Canadian and United States troops, also of landing place of Fenians, May 31, 1866. It is proposed to place a commemorative tablet in honour of the officers and men of the Royal Artillery, 49th Regiment, and Norfolk Militia, killed in this action, on a monument which is being erected by the Niagara Falls Park Commission.

Vrooman's Battery.—A suitable standard is being erected by the Niagara Falls Park Commission on which a commemorative tablet will be affixed.

Battle of Cook's Mills.—A monument and tablet, enclosed by an appropriately designed fence, will be erected on the site which has been donated by Mr. Roy Matthews.

Battlefield of Fort George.—Situated outside the town of Niagara. Landing place of invading United States troops and battle of May 27, 1813, resulting in the capture of Fort George. A plot of land 25 feet square on the military property at Fort Mississagua has been transferred from the Department of Militia and Defence to the control of this department. A monument and commemorative tablet will be erected.

Battlefield of Beechwoods or Beaver Dam.—Situated on the Mountain road near Thorold. Site of the action of June 24, 1813, between the invading United States troops and Canadian troops, the former being dispersed with heavy losses. A site has been donated by Mr. R. L. Peek, and a monument and tablet will be erected.

Site of Tete du Pont Battery.—Situated on Hog island at the mouth of the Chippewa river. Permission for the erection of a stone marker has been secured from the council of Chippewa, but action was deferred until the completion of the Hydro-Electric power canal on the island.

Sault Ste. Marie, Ont. (Lock Site).—Constructed by the Northwest Fur Company in 1797 and destroyed in July, 1814, by a force of United States troops. A portion of the old lock was uncovered in 1889 and later it was rebuilt of stone. A monument and tablet will be placed on the site, which is owned by the Lake Superior Paper Company, who have executed a lease of occupation covering the land.

Turkey Point.—Situated about 3 miles east of Port Rowan. To commemorate the encampment of Dollier and Galinee, in March, 1670; the passage of Major Gladwin and Sir William Johnson to obtain a treaty with the Indians in 1761; and of occupation by the British in war of 1812-14. A site for a monument and tablet has been selected on the reserve of Ordnance lands near the lakeside.

Glengarry Landing.—Situated between Minesing and Edenvale. Here Lt.-Col. Robert McDouall built the flotilla of boats with which he effected the relief of the British garrison at Fort Mackinac in May, 1814. Owing to its remote location, permission has been secured from the county council of Simcoe for the erection of a suitably inscribed stone marker near Edenvale bridge on the main travelled road.

WORK FOR THE FUTURE

The following historic sites have been transferred to the jurisdiction of this branch and will be suitably marked during coming seasons:—

Maritime Provinces

Fort Cumberland

Battle Ground of Grand Pré

Quebec

Battle Ground of Laprairie (2nd battle)

St. Maurice Forges

Battle Ground of Three Rivers

Fort Laprairie

Gaspé

Jacques Cartier Landing

Fort Remy

Fort Sorel

Fort Longueuil

Fort Gentilly

Fort Cuillerier

Fort Rolland

Fort Verdun

Fort Senneville

Fort Charlesbourg

Arbre-a-la-Croix

Tadoussac

Battle Ground of Riviere des Prairies

Site of Three Rivers Massacre

Three Rivers Platon and Fort

Fort St. John

DEPARTMENT OF THE INTERIOR

Eastern Ontario

Old Simcoe Building, Kingston
Windmill Point

Glengarry Cairn

Western Ontario

Mission of St. Ignace
Weishuhn's Redoubt
Navy Island Shipyard
Port Arthur
Fort William

Fort Nottawasaga
Brock's Route, Port Dover to Detroit
Battle Ground of Moraviantown
Battle of the Longwoods
Fort St. Joe

Western Canada

Northwest Rebellion.—It has been recommended that the following sites, all in the province of Saskatchewan, connected with the rebellion, of 1885, should be marked:—

Batoche.—On the South Saskatchewan river between Prince Albert and Saskatoon.

Duck Lake.—About five miles northwest of Batoche.

Battle of Fish Creek.—Situated about ten miles from Batoche.

Clark's Crossing, now Clarkboro.—About nine miles from Saskatoon.

Battleford.—First seat of government of the Northwest Territories.

Cut Knife Hill.—About thirty miles west of Battleford.

Fort Pitt.—On the Saskatchewan river near Lloydminster.

Frog Lake.—About thirty miles from Fort Pitt.

Fort Prince of Wales, Manitoba.—Situated at Churchill, Manitoba. The most northerly fortress on the American continent. Built by the Hudson's Bay Company from 1733 to 1747. Destroyed by the French and never rebuilt. Within the ruined walls are 38 old guns and the remains of the factor's residence. By Order in Council of February 21, 1922, an area of 50 acres, on which the fort is situated, at the mouth of the Churchill river, was reserved for historic memorial purposes. Two enamelled signs have been affixed to the walls of the fort, announcing that it has been created a national historic site and forbidding the removal of any of the remains.

Fort Livingstone, Manitoba.—Situated on section 5, township 34, range 32, west of the Principal meridian near Swan river. Old Royal Northwest Mounted Police post and seat of government for the Northwest Territories. The site has been acquired for proper marking.

APPENDIX No. 1

REPORT OF THE SUPERINTENDENT OF ROCKY MOUNTAINS PARK, R. S. STRONACH,
BANFF, ALBERTA

During the past season a right of way for an auto road around the animal paddocks was cut out and enough grading done to allow automobiles to make a circular trip. In this way much better views can be obtained of the different animals. These facilities have proved very popular with the thousands of visitors who find the animal enclosures one of the finest attractions in the park.

Three Rocky Mountain goats and one Rocky Mountain sheep were captured and added to the herds. In addition to these "Banff," the bull moose that escaped some years ago, returned and now seems to be quite at home.

The following is a list of the animals now in the enclosure: 7 buffalo bulls, 5 buffalo cows, 1 bull moose, 1 cow moose, 15 bull elk, 15 cow elk, 1 Persian ewe, 33 Angora rams, 33 Angora ewes, 9 Rocky Mountain rams, 7 Rocky Mountain ewes, 3 Rocky Mountain billy goats, 2 Rocky Mountain nanny goats, 3 bull yaks, 3 cow yaks.

The following animals were donated to other parks during the past season: City of Calgary, Alberta, 1 buck mule deer; Department of Agriculture, Dixon, Montana, U.S.A., 4 Rocky Mountain rams, 8 Rocky Mountain ewes; Buffalo Park, Wainwright, Alberta, 19 yaks; National Zoological Park, Washington, U.S.A., 1 bull yak; Zoological gardens, San Antonio, Texas, U.S.A., 1 Rocky Mountain ewe.

Government Baths.—The Government baths of the Upper Hot Springs and the Cave and Basin, still maintain their position as one of the most important attractions. Many times during the summer season the accommodation at the Cave and Basin was taxed to its limit. The total attendance was less than the previous year, but this is partially explained by the extremely cold weather experienced this winter (1921-22) which cut down the number of winter bathers. The attendance at the Upper Hot Springs also dropped off a little owing to the severe weather, whereas during the summer the number of bathers showed an increase.



Starting out on the thirteen-mile boat trip up lake Minnewanka, Banff National park

The numbers of bathers at the two establishments were as follows: Cave and Basin, 41,675; Upper Hot Springs, 23,625. The places of residence of bathers at the Upper Hot Springs were: Canada, 23,364; United States, 212; England, 20; Ireland, 9; Scotland, 14; Australia, 6.

The receipts at the bath-houses for the year were: Cave and Basin, \$10,403.35; Upper Hot Springs, \$5,831.55.

The cave at the Cave and Basin proved very popular, approximately 25,000 visitors registering during the season.

Camping Ground.—The public camping ground, which is situated amid surroundings of unsurpassed beauty near the Bow falls and supplied with good running water and sanitary facilities, is being patronized more and more each year by motor parties who visit the park.

The camp site has been in existence five years and the camping permits each year have steadily increased as the figures below show. The large majority of these visitors are Canadians. Following are the numbers in the fiscal years ended on March 31 in the year named: 1918, 73; 1919, 57; 1920, 77; 1921, 200; 1922, 338.

Fishing.—Excellent fishing was obtained last season in nearly all the lakes and streams in the park and no difficulty was experienced in catching the maximum allowed for one day.

The Dominion fish hatchery at Banff continued its good work, a greater number of game fish being hatched out and liberated than in any previous year. The following fry were liberated during the season: Salmon trout, 136,756; Atlantic salmon, 133,600; rainbow trout, 649,752; cut-throat (or red-throat) trout, 318,825. In addition, 60,725 cut-throat trout were liberated in the Spray lakes from the Spray Lakes hatchery. Visitors to the number of 3,987 registered at the hatchery at Banff.



NEARING CANMORE

On the Banff-Calgary motor highway, Banff National park

Forest Fires.—During the season there were 24 forest fires. Seven of these were started by sparks from passing engines. The only fire which could be considered of a serious nature occurred on June 23 on the northern slopes of Rundle mountain, giving the warden staff considerable trouble and burning over approximately 150 acres of land before it could be got under control.

Fire Fighting Equipment.—During the season a fire truck was added to the fire-fighting equipment, and has already proved of great value.

Game Protection.—No infractions of the game laws were recorded during the season.

Golf Course.—The new course has been finished with the exception of a few bunkers on the old part of the course, which, if constructed, would have interfered with the use of that course. The old road which cut across the course was all filled in and seeded and the Loop Drive diversion, to avoid the new course, completed.

Health.—Health conditions were exceptionally good in the park during the past year. There were no epidemics and very few cases of infectious or contagious diseases. All dairy cows were again tested for tuberculosis by an officer of the Department of Agriculture, assisted by our inspector. Only one animal which reacted to the test was found in the park, which indicates the healthy condition of the herd supplying milk to the residents of the different Government townsites.

Motor Traffic.—The popularity of the motor trip from Calgary to Banff is indicated by the large increase in the number of cars passing through the eastern entrance to the park. During the year, 3,492 cars entered by way of Kananaskis carrying approximately 15,000 persons. The following is a summary of the places from which these cars came: Calgary, 2,235; other points in Alberta, 890; other points in Canada, 216; United States, 151.

Museum.—During the season a large number of tourists visited the museum and a number made use of the collections for identification purposes. The following birds and mammals were added during the year: Richardson's grouse, baldpate duck, water ousel, Canada jay, Clarke nutcracker, Hungarian partridge, skunk. In addition to these specimens a number of rare insects, spiders and butterflies were procured, also certain plants as well as fossils and rocks, specimens of which were missing from our collections.

Plants.—Owing to the fact that climatic conditions were favourable for plant growth, flowers and plants peculiar to the mountains were much more numerous than during the previous year and some very good specimens were obtained for the museum and by visiting botanists. Prof. R. B. Thompson and Prof. E. M. Walker of the University of Toronto, and Dr. F. J. Lewis of the University of Alberta, spent several days collecting and were successful in obtaining some rare specimens.

Birds.—Mr. J. A. Munroe, Chief Migratory Bird Officer for the Western Provinces, spent some weeks in Banff during the winter months and much valuable information was obtained from him concerning the increase of bird life in the park and also with regard to the classification of the specimens in the museum.

Building Permits.—During the year 49 building permits were issued, the estimated cost of the work covered by these permits amounting to \$121,075.

Grazing Permits.—Seventy-three grazing permits were issued, covering the grazing of 323 cows, and 432 horses. The number of animals covered by these permits shows a large increase over the number for which permits were issued during the previous year.

Timber Permits.—The number of permits issued to residents for the cutting of dry wood in the vicinity of Banff totalled 62, covering approximately 850 cords of firewood. Twenty-six permits covering quarter sections were also issued and approximately 3,000 cords of timber were cut on these areas.

Roads and Bridges.—A very extensive programme for the maintenance of roads and bridges was undertaken and the results obtained were very satisfactory. Four road gangs were employed during the summer months. During the season the Castle-Lake Louise Highway was opened to motor traffic and soon became very

popular. In addition to the gangs mentioned above, two sectionmen were stationed at points approximately ten miles apart on all the roads, and by their efforts the highways were maintained in an excellent state of repair. During the winter months gangs were employed on the Banff-Castle road and the Tunnel Mountain drive blasting away points of rock, etc.

The new bridge over the Bow river at Banff was completed during the summer months and now constitutes one of the most attractive highway bridges in Canada. A new bridge over the Cascade river near Anthracite was also finished in the early summer months opening up to the motorist one of the most beautiful spots, from a scenic standpoint, in the park.



ON THE MORaine LAKE ROAD
Valley of the Ten Peaks, Banff National park

Telephones.—With the completion of the remodelling of the Banff telephone system it was extremely difficult to keep up with the applications for telephone service, as the system practically doubled during the season. The system is now a very efficient one.

Banff Townsite.—The usual general maintenance work on the streets of Banff was carried on and in addition all streets of Banff were given a coat of asphaltic oil. The new diversion from Lynx street to the Banff-Castle highway was completed. The demand for building lots in Banff is becoming greater each year.

A new covered curling rink was erected on the Recreation Grounds, and a most successful bonspiel was held in February.

Canmore Townsite.—Work on the new lighting system was started in the late fall and completed about the first of January. Service is now being given to approximately 70 of the residences and applications for service are still being received.

Lake Louise Townsite.—Although applications have been filed for lots in this townsite no active building has yet been started. It is expected, however, that some

building will be undertaken during the coming season as the number of tourists to this section of the park has increased greatly since the road between Banff and Lake Louise was opened to motor traffic.

Trails.—The following new trails were constructed: trail from Bryant creek along Marvel lake over Wonder pass to mount Assiniboine, a distance of 5 miles; trail from the mouth of Bryant creek to Whiteman's pass along Whiteman's creek, a distance of 8 miles; trail from the Red Deer summit down the Red Deer river to Scotch Camp, a distance of 16 miles; trail from Scotch camp to Windy camp on the Panther river, a distance of 15 miles.

Visitors.—In the month of April their Excellencies, the Duke and Duchess of Devonshire accompanied by certain members of their family and suite, paid their farewell visit to Banff. They remained three days before resuming their journey to the coast.



THE BOW VALLEY GROUP
From Tunnel Mountain, Banff National park

Waterworks.—During the winter months of 1920-21 a new dam at the intake works was completed. It is expected that many of the difficulties experienced when the old dam was in use will now be entirely eliminated.

Zoo.—Great interest was taken in the Zoo last season by tourists. It was not an uncommon sight to see from 100 to 150 people congregated around the cages during feeding hours. A number of valuable specimens were procured during the year, the most important of which were: 1 pair mountain lions, 1 green monkey, 1 vervet monkey, 4 Rhesus monkeys, 1 pair timber wolf pups, 1 pair coyote pups, family of skunks, 1 pair Amherst pheasants, 1 pair Chinese pheasants, 1 pair Mongolian pheasants, 1 pair prairie chickens, 1 golden eagle.

Winter Carnival.—The Winter Carnival was held in Banff during the week commencing January 30. Weather conditions were ideal during the latter part of the week and large and enthusiastic crowds watched the different events.

APPENDIX No. 1a

VISITORS TO ROCKY MOUNTAINS PARK FROM APRIL 1, 1921 TO MARCH 31, 1922
HOTEL REGISTRATIONS

Hotel	Home Country of Visitors				Conducted Parties	Total
	Canada	United States	British Isles	Other countries		
Banff Springs Hotel, Banff.....	2,824	9,225	434	407	89	12,979
Chateau Lake Louise, Lake Louise.....	2,265	12,463	344	422	320	15,814
King Edward Hotel, Banff.....	2,995	336	255	83	.....	3,669
Bretton Hall, Banff.....	2,191	604	58	42	.....	2,895
Mount Royal Hotel, Banff.....	1,215	1,052	.....	495	.....	2,762
Homestead Hotel, Banff.....	1,463	311	23	19	.....	1,816
Alberta Hotel.....	983	203	.....	14	.....	1,200
Hot Springs Hotel, Banff.....	387	15	.....	3	.....	405
	14,323	24,209	1,114	1,485	409	41,540

SUMMARY

Total hotel registrations.....	41,540
Summer cottagers, guests at boarding houses and campers (estimated).....	6,000
Motorists.....	15,000
Excursionists.....	9,000
Grand total.....	71,540

APPENDIX No. 1b

THE ALPINE CLUB OF CANADA

(Report prepared by the Secretary)

The club house had a very successful season and was never without guests during the entire summer, some making long stays. As usual it was the rendezvous of very many strangers seeking information about the Canadian mountain regions—information which is apparently available nowhere else. Such visitors are gladly welcomed as it is one of the main objects of the club to make the mountain regions of Canada known to all the world.

The usual local climbs were made. Miss Gold and Messrs. West and Wates climbed mount Edith. They experienced no difficulty and had an enjoyable time. Dr. Hickson, Mr. L. S. Crosby and Mr. Edouard Feuz made the first ascent of the pinnacle beyond mount Louis which has been an object of interest to climbers for some time. It proved a fine rock climb. Later on Mr. Morrow made the ascent of one of the Three Sisters at Canmore.

An added attraction to the building was the installation of the bath system so kindly subscribed for by the overseas members.

Mr. A. L. Mumm, a life member and vice-president of the English Alpine Club, gave a number of magnificent photographic enlargements of views of the mount Assiniboine country. These are framed and hang in the dining room together with the mount Robson pictures by the same artist. As all the pictures in the dining room are by him it is named the Mumm collection. Mr. W. D. Wilcox presented a set of his beautiful pictures of the mountains.

Professor Charles E. Fay, another honorary member, presented the club with the ice axe of Peter Sarbach, bearing the following inscription: "This axe was the property of Peter Sarbach, the first Swiss guide in the Rockies, in 1897. On the breaking of the shaft of the Appalachian mountain club axe, Sarbach loaned it to C. E. Fay, who used it for the first ascents of mount Lefroy (August 3), mount Victoria (August 5) and mount Gordon (August 10)." The club will keep this axe in the Banff club house where all may see the trophy of an earlier day so graciously given by our old friend. The visitors to the club house came from all over Canada and the United States as well as the United Kingdom of Great Britain and Ireland.

REPORT OF THE ANNUAL CAMP AT LAKE O'HARA

(Prepared by the Secretary)

The sixteenth annual camp of the Alpine Club of Canada was held in the meadows near lake O'Hara from July 26 to August 6. It is a curious coincidence that four camps have been held in this neighbourhood at intervals of four years. In 1909 we met on the same site and enjoyed perhaps the most successful of any of our camps. That year the British association met in Winnipeg and the club extended an invitation to twenty British mountaineers. The veteran, Edward Whymper, was there and many others, several of whom have repeated their visits to our great pleasure.

This year an invitation was extended to the veteran climbers in the Canadian Alps from the United States. Our honorary member, Professor Charles E. Fay, organized the representation and if the fates were against his success in gathering together all whom we might have wished to see, the attendance was fit though few. There were present besides Professor Fay himself, Rev. Dr. H. P. Nichols of New York, Mr. B. S. Comstock of South Orange and Mr. W. D. Wilcox of Washington. The "Rockies of Canada" by Mr. Wilcox is well known and his wonderful photographs of the Canadian Rockies are admired wherever they are seen.

No more fascinating camp site can be found in the mountains. Lake O'Hara won the heart of the great painter Sargent, who declared it the most beautiful lake he had ever seen. To appreciate it fully it has to be lived with and seen in every light—in sunshine and in storm.

The weather afforded all varieties of condition, from warm summer to snow, but as a matter of fact, there were only two bad days. The accident to Dr. Stone cast a shadow over the camp and necessitated taking away one of the Swiss guides, thus curtailing the more serious climbing, although all the newcomers who wished were able to graduate.

The camp was a fine centre for excursions and climbs of all kinds of difficulty. The famous two-day expedition was repeated four times. Leaving O'Hara in the morning, Abbot pass, the Victoria and Lefroy glaciers, and Mitre pass were crossed to Paradise valley, where the night was spent in a comfortable bivouac camp. Next day, by way of the Wastach, Wenkemna, and Opabin passes and glaciers, O'Hara was again reached. There is probably no other expedition in the mountains which reveals the heart of things so fully with so little labour.

Mount Odaray was the qualifying climb and found to be of great interest. Huber was the graduating climb in 1909 was in no fit condition.

A new policy, as outlined in the circular, was developed which was found to work admirably. Before inexperienced members were allowed to attempt the graduating climb they were sent on preparatory instructive climbs and according to reports of their fitness were permitted to attempt graduation. No one more appreciated the advantages of this scheme than the novice himself, and the knowledge thus acquired made his test climb a thing of joy.

The most valuable training climbs were the Opabin pass and mount Wiwaxy. On the latter some very interesting rock work can be obtained. In addition to mounts Odaray and Wiwaxy, climbs were made of mounts Victoria, Schaeffer, Yukness, and

Park mountain. The last was found to be by no means as easy as anticipated. One party came into camp from Field by way of Duchesnay pass and did not think the interest equalled the labour. A trip, as in 1913, was made to lake Linda under the kindly guidance of Professor Fay and as in 1913 was a little late in returning.

The camp fires were as enjoyable as ever and the reminiscences of the pioneers were of the utmost interest. The lovely voice of Mrs. Burnett will linger long in the memory of those who heard it. There were 157 placed under canvas, among them representatives of the Alpine club (England), the American and Swiss Alpine clubs, the Appalachian Mountain club, the Green Mountain club, the Sierra club, and the Royal Geographical Society.

Those present were drawn from the following: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, England, California, Connecticut, District of Columbia, Massachusetts, Michigan, Minnesota, New Jersey, New York, and Pennsylvania.

APPENDIX No. 2

REPORT OF THE SUPERINTENDENT OF YOHO AND GLACIER PARKS, E. N. RUSSELL, FIELD, B.C.

The first work of the fiscal year was in and around the townsite of Field. Streets were repaired and put in shape as also were the plank sidewalks in the townsite. Permanent approaches were put in at each end of the new bridge over the Kicking Horse river at Field.

Road repairs were commenced as soon as possible in the spring, when the Yoho, Emerald lake, Hector, and Ottertail roads were thoroughly gone over and put into good condition. This year, for the first time in this park, motor trucks were used by the department in connection with road work. They proved most useful and enabled the handling of the major portion of road repairs from town, in place of having to establish small temporary camps a few miles out, thus saving the overhead charges necessary to the running of a camp.

Yoho Park.—A good deal of work was done on the park trails in addition to the general repairs which are made almost daily by the wardens in the course of their patrols. The major portion of the trail repairs this year were in the vicinity of Field and Wapta Camp, as owing to the Alpine club camp this year at lake O'Hara there was more travel on these trails than usual.

During the summer months a new garage and implement house was constructed in the townsite of Field to house park cars and other equipment. Two new streets were opened up in the townsite on the area recently taken over from the Canadian Pacific Railway Company and it is anticipated that the lots on this area will shortly be made available for application.

The stocking of the waters in the park with suitable fish was continued again this year: 25,000 rainbow trout were placed in Wapta lake, 25,000 in Emerald lake and 20,000 in Sherbrooke lake. Wapta lake was suitably screened at the outlet by the Canadian Pacific Railway to prevent the young fish from going down the waters of the Kicking Horse river. In previous years both Wapta and Emerald lakes had been stocked with cutthroat (or red-throat) trout but after a thorough examination of the waters the feeding grounds and general conditions by officers of the Dominion fish hatchery at Banff, the rainbow trout were considered to be better adapted to these waters and it is anticipated that in a few years the results of this stocking will be noticeable.

Game of all kinds is increasing by leaps and bounds in the park. It is now barely two years since total protection of game was begun and the game placed under

the control of the Dominion Government and subject to the park regulations; and, whereas two years ago the larger kinds of game were rarely seen in the park, now they are an every day sight. Moose are particularly plentiful and frequent the flats around Ottertail and Leancoil in great numbers, while deer are frequently seen in herds of from eight to twelve. Goat and bear are also numerous, in fact the warden service has had to dispose of several bears which at different times became a nuisance, hanging around camps or settlements for the garbage they were able to obtain. Elk and sheep have been seen in the park during the past season but these probably came in from the Rocky Mountains park and more than likely returned there again.

There was only one small forest fire caused by lightning, near the ten mile post in the Yoho valley, in which there was no destruction to timber. No railway fires occurred within the boundaries of the park and apparently the educational propaganda conducted by the department for a number of years past is now having its effect.

The number of tourists visiting the park this year was up to the maximum of the accommodation and many had to be turned away for lack of a place to stay. The Railway Company are, however, increasing their accommodation considerably for next



Looking down Yoho Valley, Yoho National park

year. Additions were made to the Emerald Lake Chalet during the winter months which will increase the accommodation from thirty to approximately one hundred guests. A large room has been built which can be used for dancing or similar purposes, and modern plumbing has been installed throughout the buildings. Permanent camps are being established by the Canadian Pacific Railway at lake O'Hara and in the Yoho valley while a half way camp is to be established at Summit lake. There will thus be a series of hotels or camps dotted about the park. Visitors at Emerald Lake Chalet totalled 1,110 of whom 212 were Canadians, 801 came from the United States, and 97 from other countries.

Revenue returns in this park, will show an advance over those of last year of about 50 per cent. This is principally due to the increase in the amount of dead timber being removed from the park.

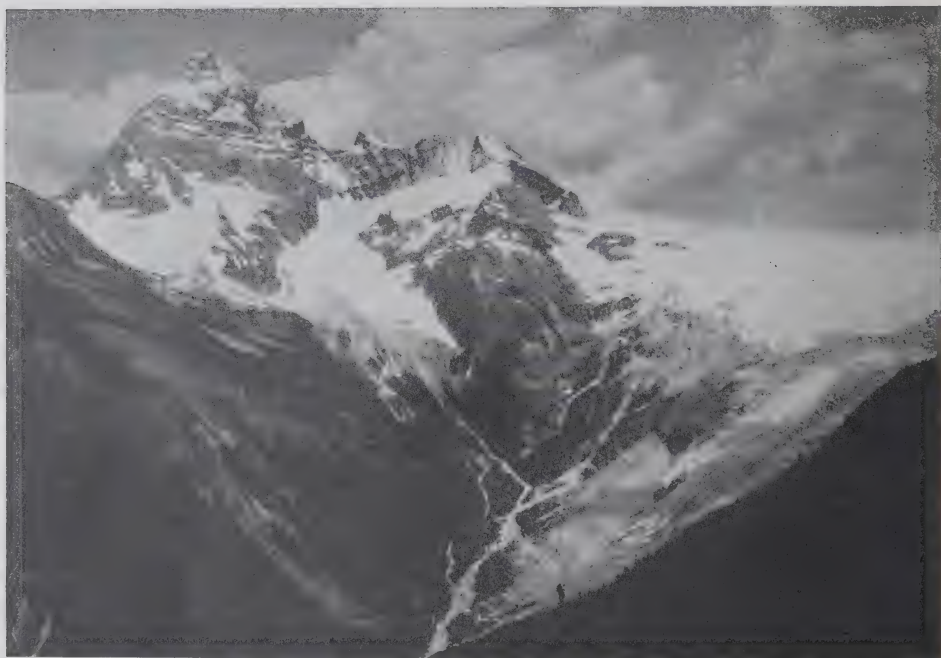
Glacier Park.—Work in this park commenced with the repairing of the road from Glacier station to the Glacier hotel, after which the road to the Nakimu caves was opened up and the new road to Rogers pass from the hotel completed. Motor

cars were used for the first time on these roads and greatly facilitated the handling of passengers between the station and the hotel. A sight-seeing car was run between Glacier and Rogers pass making daily trips which proved very popular on account of the magnificent scenery that can be viewed from almost any point along this route.

On trails a considerable amount of repair work was done. There are now approximately 115 miles of trails in this park, the majority of which are in first class condition.

A new trail was constructed between Flat creek and Glacier along the Illecillewaet valley, a distance of about seven miles. The work of making an accurate measurement of the length of all trails and posting up the mileage at each mile has been begun.

At the Nakimu caves, the development work started last year was continued with good results. The caves from No. 4 entrance were further explored and a



Mount Sir Donald, Glacier National park

considerable additional distance was made accessible to the public by the construction of a series of stairways, cement walks, handrails, etc. A record number of visitors was shown through the caves. The number becomes greater each year as the caves become better known and more fully developed.

There was only one small fire in the park which was started by lightning not very far from the hotel and caused the guests there to spend a few anxious moments. The wardens were, however, quickly on the spot with a gang of fire-fighters, and it was not long before they were able to get it under control.

Game in this park, as in the Yoho, is on the increase, caribou being one of the most plentiful species. Two cases of infringement of the game regulations by trapping were taken up during the year and convictions secured in both.

Visitors at Glacier House totalled 3,223, of whom 300 were Canadians, 2,819 came from the United States, and 104 from other countries.

APPENDIX No. 3

REPORT OF THE SUPERINTENDENT OF MOUNT REVELSTOKE NATIONAL PARK, F. E. MAUNDER,
REVELSTOKE, B.C.

The season's work commenced during the last week of April when a few men were set at work following up the melting snow in order to keep ditches and culverts open. This must be done every spring to prevent serious washouts on the park road. When the danger from washouts was over the sectionmen set about the cleaning of ditches and the surfacing of the roadbed with material from the banks. This work was carried on throughout the season and the road maintained in a fine condition. Citizens of Revelstoke came up in large numbers in their cars and derived much pleasure from the magnificent drive.

As soon too as the western road from Revelstoke to Sicamous and Vernon is completed, Revelstoke will have motor communication with the greater part of interior and southern British Columbia and large numbers of visitors will no doubt make the motor trip up the mountain to the park.

Trails.—The trail from Revelstoke to lakes Eva and Miller was gone over and repaired. A new trail was started from Greely creek, the end of the provincial wagon road, towards the north boundary of the park at Silver creek. The year's work represents about 7 miles and it is hoped to complete it by the fall of 1922. This will make it much easier to handle forest fires that may start on the eastern slope of the park.

The telephone line from Revelstoke was extended to Balsam cabin at the summit, so that the warden will be able to communicate directly with headquarters in case of an emergency.

Game.—There were no infractions of the game regulations during the year which seems to indicate that the majority of people recognize and appreciate the sanctuary conditions prevailing in the park. In consequence the wild life is becoming very tame. During the summer and fall months as many as two or three dozen partridges might be counted while making a trip up the auto road. Deer are also met with and during the winter have been observed wandering on the south slope of the park. There were also plenty of caribou tracks to be seen and it is believed that these animals are quite plentiful in the park though they roam chiefly on the highest parts.

Winter Sports.—The Eighth Annual Tournament of the Revelstoke Ski Club was held on the Ski hill, Revelstoke park, on February 7 and 8, 1922, and, as in past years, attracted numerous competitors and visitors from outside points. The new shelter on the ski grounds was very much appreciated both by the Ski Club and the citizens of the district at large, and it proved a great convenience to all.

APPENDIX No. 4

REPORT OF THE SUPERINTENDENT OF JASPER PARK, COL. S. M. ROGERS, JASPER, ALTA.

A standard trail was built between Sunwapta cabin on the Sunwapta branch of the Athabaska river over the Poboktan pass and down to Brazeau lake, thence following the Brazeau river to its junction with the Southesk river, a distance of 53½ miles. This opens up a most interesting scenic, fishing, and game area which in the past has been almost impossible of access, and adds to the park facilities in the way of fire and game protection.

The greater portion of the trail from Caledonia lake to Dorothy lake was completed and the remainder, about 4 miles, will be finished during 1922.

A standard trail was completed up Snake Indian river to Rock lake, approximately 35 miles, making accessible a very interesting area and much improving the fire-protective facilities.

Aerial Reconnaissance and Photography.—Through the co-operation of the Canadian Air Board the superintendent was enabled to take part as photographer in trial flights by aeroplane covering three days, under the pilotage of Major Croil, Air Superintendent at High River, Alberta. A number of photographs were secured, many of which are of areas hitherto inaccessible, and it was established that the district was favourable for flying operations, owing to the wide valleys and the absence of air pockets which often render mountain flying difficult and dangerous. It was also found that Jasper park offers exceptional facilities for water landing-places for hydro-aeroplanes, if such are used in the future operations in connection with fire protection and aerial photo-topography.

Forest and other fires.—Fire losses were very low, owing to an unusual amount of precipitation and extra care in safeguarding. There were 27 railway fires with a total damage of \$53.75 and six general fires, causing a total damage of \$50. The cost of fire-fighting was: railway fires, \$473.59; general fires, \$818.75; total, \$1,292.34.

Roads.—General road maintenance work was successfully carried out by the resident engineer and much necessary data obtained for the future extension of work.

Visitors to Jasper Park.—During the past season approximately 7,000 people visited Jasper park.

His Excellency the Governor General and the Duchess of Devonshire paid a farewell visit to Jasper park accompanied by a large house party, the members of which were kind enough to express their interest in this park and the hope of returning in the near future for an extended stay.



MOUNT HARDISTY

From the Edith Cavell motor road, Jasper National park

Edmonton—Vancouver Motor Highway.—The pathfinding party organized in connection with the proposed highway made their reconnaissance trip from Edmonton, proceeding part way by motor car and then by train and railway speeder to Entrance

where they crossed the Athabaska river to Parkgate on the abandoned right of way of the Grand Trunk Pacific Railway. From this point within the park they covered the abandoned right of way to Pocahontas on horseback, and railway speeders were furnished from there to Jasper. In the opinion of this large party, including provincial government engineers, it would be comparatively easy and economical to convert the abandoned rights of way into a good motor highway.

Game Animals in Jasper Park.—There is a continued and most satisfactory increase in game animals, though it is impossible to estimate numbers correctly, owing to the wide area their range covers and their continual movement to new feeding grounds. The herd of wapiti procured from Yellowstone National Park, United States, has increased most satisfactorily. It is considered that the original 85 on a conservative estimate, has increased to over 200. They are in splendid condition and evidently find that this park affords good summer and winter feeding grounds.

Interprovincial Boundary Survey.—Two large parties working under Dominion and provincial authority carried out successfully the survey of the remainder of the line south of the Canadian National railway covering the Fortress lake, Whirlpool river, and Tonquin valley areas, and also a small portion of the area north of the railway from Yellowhead. This not only completes a much-needed work but serves to open up new areas in the park.



Lac Beauvert and Pyramid Mountain, Jasper National park

New Buildings.—A number of suitable residences of the bungalow type were erected during the year, some of which are very artistic. Plans have also been filed for a number of new business buildings.

The steel bridge and approaches at the crossing of the Athabaska river were completed during the summer and afford a safe and convenient crossing.

Contagious Diseases Hospital.—A small hospital to care for contagious diseases has been provided and equipped. Should an emergency arise the hospital is now well fitted to deal with it. Accommodation for 10 patients is provided.

Agnes Laut Colony, Lake Edith.—Miss Agnes Laut, the well-known writer and publicist, and Miss Julia E. Follett, of New York, have erected four attractive log bungalows, the first of the proposed colony of authors, artists and university professors which Miss Laut hopes to establish in the park.

Telephone Construction.—Twenty-eight and a half miles of telephone lines were constructed during the year, adding greatly to the efficiency of the fire and game protection service. The longest line runs from the Athabaska Falls to Sunwapta cabin, a distance of 19½ miles.

Predatory Animals and Birds.—During the year the warden service has continued an active campaign against all forms of predatory life. In addition to numerous crows, hawks, pack-rats, etc., the following predatory animals and birds were destroyed, principally by trapping, during the past winter: 1 timber wolf, 21 coyotes, 3 wolverines, 5 weasels, 1 lynx, 1 eagle.

Forest Reproduction.—There is an unusually heavy new growth of both Douglas fir and spruce, gradually spreading over the valley of the Athabaska. This supersedes the lodgepole pine, and forms a much more valuable timber asset than the latter. This new growth is especially noted in and around Jasper where both Douglas fir and spruce are observed. From Bedson to Brule and Errington the major portion of the new growth is spruce; this also applies to the east bank of the Athabaska from Snaring Junction north to the park boundary.

APPENDIX No. 5

REPORT OF THE SUPERINTENDENT OF WATERTON LAKES PARK, G. E. BEVAN, WATERTON PARK, ALTA.

The outstanding feature of the season, 1921-22, was the marked increase in visitors. Approximately 20,000 persons visited the park, and their whole-hearted and enthusiastic appreciation will do much to advertise its attractions. Fully 70 per



Pack train leaving Waterton Lake, Waterton Lakes National park. Mount Bertha to the left.

cent of these arrived by motor car, bringing their own camping equipment and supplies.

The remarks of widely travelled tourists in the visitors' register reveal the surprise and delight experienced by visitors. One publicist, who has visited every scenic attraction from Mexico to northern Canada, stated that Waterton Lakes was the "gem of them all." It is evident that this park is now coming into its own. With the increase of facilities for the accommodation of tourists and the extension of the road system it will become one of the most popular resorts in the whole of the West and an increasing source of benefit in money and health. It forms too, with Glacier park in Montana, an international playground which gives an additional interest and value.

As expected the opening of the new subdivision early this spring caused a revival of interest in building and many lots were applied for.

GAME PROTECTION

Moose.—Except for an occasional stray animal, no moose make this park their habitat. The few that sometimes make their appearance evidently wander in from British Columbia or Montana.

Deer.—There is no question regarding the increase of the mule or black-tailed deer, as daily evidenced by the entries in the warden's diaries, and by personal observation. On one occasion last spring 84 were counted in one herd in the immediate vicinity of headquarters. The number of yearlings in these herds is a matter of congratulation, as showing the decrease in wolves and coyotes, natural enemies of the deer.

Rocky Mountain Sheep.—The head of this animal, known commonly as the bighorn, is the most sought for trophy of the hunter. During the summer sheep seek the upper slopes, but with the coming of autumn they seek the valleys and may then be easily seen and estimated. The same flock ranged on Vimy mountain this year as last, and would appear to have increased in numbers.

Goat.—From the diaries of wardens, goat appear to be increasing in the park, though it is extremely difficult to make an estimate of their numbers, as they inhabit the upper slopes of the most rocky and precipitous mountains.

Beaver.—These are undoubtedly increasing, so much so that ranchers and homesteaders in districts near the park have been granted permits to trap them. These are no doubt the overflow of the natural increase in this sanctuary. Beavers never cease to excite interest among the visitors to this park and evening parties are often made to go and "watch the beaver."

Bear.—Bears are clearly on the increase though as a rule they are only seen in spring when they are leaving their winter quarters. In the summer they disappear to their solitary ranges and though a few cases of pilfering have been reported they have not become a nuisance.

Bird Life.—During the migratory season water-fowl are in evidence. Then, the lakes being on their direct route south, many flocks rest a day or so on their long flight, and swans, geese, and ducks are to be seen in tremendous flocks. Grouse, partridge, and kindred species appear to be increasing. The smaller feathered varieties are here in abundance and are a never ending source of interest to our campers and visitors.

Predatory Animals.—Cougars (mountain lions), wolves, and coyotes are the largest and most persistent enemies of game animals and continued efforts to reduce them are made by the wardens with good effect.

Fishing.—The satisfaction expressed by the tourists with regard to the park fishing attractions is gratifying. The largest lake trout caught this season weighed 37 pounds, while a dozen or more weighed between 20 and 30 pounds.

PROTECTION AND DEVELOPMENT

Fire Protection.—Only one forest fire of magnitude occurred here last season, notwithstanding the dry, hot summer. This was, however, a severe one. Isolated in one of the most inaccessible portions of the park, where trails had to be cut to allow the passage of men and equipment, it had attained considerable headway before it could be checked. Here again the portable fire-fighting units proved their value.

Telephones.—With the completion of the line between the Belly river ranger station and the new Lees cabin, about 60 miles of forest service line will be in operation. For the maintenance and improvement of this important service 500 poles have been cut and stacked during the past winter.

Trails.—A new trail to the summit of Vimy mountain was cleared and partly graded. Another was cut to Bertha lake and one to Cameron lake and the boundary was also partly completed.

Roads.—Two miles of the Oil City road were completed during the summer. The commencement of this road, which is destined to be the main trunk



Looking across lake Linnet towards Vimy mountain, Waterton Lakes National park

highway of the park, has caused much satisfaction to patrons of the park. The road will eventually cross the southeastern corner of British Columbia and will connect with roads leading to the Pacific coast and Banff-Windermere highway. When completed it will thus place Waterton Lakes park on the International park-to-park highway, and in addition it will open up a vast mountain hinterland of unexcelled scenic beauty.

Farming Operations.—The park farming operations produced sufficient crop to provide headquarters with grain for the winter months and forage for the year. It is hoped in the near future to harvest enough forage to supply not only headquarters but the wardens' stations as well.

Grazing.—Owing to the effect of the general financial depression on the stock industry there were fewer applications for grazing permits. Those issued aggregated only 1,763 in 1921, as against 1,912 in 1920.

Visitors.—The increasing popularity of Waterton Lakes park as a summer resort is evidenced by the large increase in the tourist traffic. The following comparative figures of the numbers visiting the park show this conclusively: 1918, 5,000; 1919, 9,000; 1920, 14,000; 1921, 20,000; total, 48,000.

Last season's entries in the park register show representatives from 32 States of the Union, from ten foreign countries and from each of the provinces of the Dominion. The completion of the main trunk highway through the park will tend to increase the number of visitors from the Pacific States.

The recreations at Waterton park during the season include fishing, boating, bathing, motor launch trips, hiking, horseback trips, golf, dancing, etc. The initial work done on the new golf course and the decision to complete the course during the coming season has been received with great enthusiasm by local patrons.

APPENDIX No. 6

REPORT OF THE SUPERINTENDENT OF BUFFALO PARK, A. G. SMITH, WAINWRIGHT, ALBERTA.

Farming Operations.—The land under crop consisted of 415 acres seeded to oats, 180 acres being summer-fallow, 100 acres fall ploughing and the remainder spring ploughing. Approximately 35 acres were cut for green feed and from the remainder 9,200 bushels of oats were threshed, this being sufficient for the park requirements for the coming year, including seed. About 3,000 bushels were shipped to other Dominion parks.

Haying.—A total of 850 tons of hay was secured this year, of which 800 tons were cut on the Ribstone meadow. All of the latter was this year's growth and well saved. The remainder, mostly upland hay, was cut in the cattalo enclosure, home paddock and at Rocky Ford. Permits covering 175 tons, in small lots, were granted to settlers living in the vicinity of the park.

Fire Protection.—With the exception of 21 miles of fireguard along the west side, which were ploughed by contract, all of the guards were ploughed by park outfits. There was one bad fire during the year. This fire entered the park from the outside at the southwest corner and burned over 1,000 acres of grazing land.

Fencing.—About 40 miles of the main fence on the north, east, and south boundaries were repaired, and 5 miles of new fences erected in Winter Quarters, in connection with the construction of receiving pastures and a "cutting-out" corral.

Telephone Line.—Nine miles of new telephone line were constructed connecting the warden's cabin on the west side of the park with the park telephone system.

Timber Permits.—Fifty-four dry wood permits, each permit being for 25 cords of wood, were issued to people living in the vicinity of the park for their own use. Permits were also issued to farmers covering 22,000 willow fence-pickets, a privilege greatly appreciated by the settlers in the district.

Wild Animals.—Nineteen yak were brought in from Banff last fall and are doing well. All the animals are looking well and are thriving. The natural increase in buffalo for the year has been 1,075, bringing the total number now in the herd up to 6,146.

The records show that there are at present the following animals in the park: buffalo, 6,146; moose, 24; elk, 187; mule deer (estimated), 466; antelope, 4; cattalo, 13; yak, 22; domestic cattle (cattalo experiment), 17; total, 6,879.

Breeding Experiments.—Very encouraging results are being obtained from the experiments in cross-breeding domestic cattle with buffalo and yak, which are being carried on by the Department of Agriculture in this park; although these experiments, as can be expected, must necessarily be very slow and it will be some years before definite results can be achieved.

Birds.—The protection afforded all bird life in a sanctuary of this kind is certainly of great benefit, and it is interesting to note how the wild geese and ducks recognize that it exists. Sportsmen of the district also appreciate the protection given to game birds and realize that the good shooting to be had outside the park during the open season is chiefly due to the fact that all bird life is safe within the boundary of the park.



A section of the great herd of 6,000 buffalo in Buffalo park, Wainwright, Alta.

Coyotes.—During the year 65 coyotes were destroyed. A few of these were shot but the majority were killed by dogs, as this has been found to be the most effective method of dealing with these predatory animals.

Visitors.—Buffalo park, during the past season, was honoured with a visit from their Excellencies the Duke and Duchess of Devonshire and party. The animals were rounded up for the occasion and the vice-regal party had the novel opportunity of viewing such a great herd of buffalo living under natural conditions.

Motor traffic to the park was greater than during any previous season, in fact most of the 7,000 visitors to our park travelled in this manner.

APPENDIX No. 7

REPORT OF THE SUPERINTENDENT OF ELK ISLAND PARK, ARCHIBALD COXFORD,
LAMONT, ALBERTA

In June and July the ploughing of the fireguard and widening it 16 feet on the east side of the park was carried out. Some of the sloughs were also corduroyed so as to connect the different sections of the fireguard throughout, which will make it much easier for ploughing and disking. No fires occurred in the park during the year.

As usual the main fence was thoroughly gone over and all weak places repaired. In order to protect the hay land in the forest reserve a new fence was also built around sections 10 and 11 and the north half of section 2. Haying was begun about the first of August. The crop was approximately 400 tons and this, with the 50 tons carried over from the previous year, was sufficient for the winter's feed.

The main road into the park and through the buffalo pasture was gone over and put into good condition. Later a trail was cut from the Sandy Beach fireguard to the east fence for convenience in case of fire.

Animals and Birds.—All the wild animals in the park are in splendid condition. There was a net increase of 37 buffalo. The total number of animals now in the park is as follows: buffalo, 270; moose, 70; elk, (estimated) 200; mule deer, (estimated) 150. It is believed that the coyotes do considerable damage to the small deer. There is so much brush here and they are so cunning it is difficult to make much headway against them, although by shooting, trapping, and baiting six were killed during the winter.

Wild birds of all kinds are very plentiful. Partridges, prairie chickens, and herons nest in the park and when the shooting season opens the wild ducks flock in hundreds into the park for the protection it affords and they remain until the lake freezes.

Visitors.—It proved a very busy season with visitors and campers, the total number coming through the gate being 5,443. Two parties took out permits to build cottages and it is hoped that before spring opens a survey will be made of a number of lots for building purposes.

APPENDIX No. 8

REPORT OF THE SUPERINTENDENT OF POINT PEELE PARK, F. H. CONOVER,
LEAMINGTON, ONT.

The past season showed an increased number of visitors at Point Pelee park both from Canada and the United States. The fact that the park is only thirty-eight miles from Detroit, a city of one million people, together with its southerly situation and unusual attractions, no doubt accounts for the large number of motorists who come here from across the border. Each year finds it increasing in favour as a pleasure resort.

The new and handsome pavilion has been much commented upon. It is centrally located in the park facing lake Erie and in close proximity to an excellent bathing beach. Ample accommodation for bathers will soon be provided in the new bath-house which will be constructed this season.

The absence of mild easterly winds, which usually bring in a supply of sand and gravel, brought about a deficiency in road materials so that the surfacing of only half the road could be undertaken. Under favourable conditions the remainder can be completed early in the coming season.

Three supply wells for fire units were sunk at points that would be most accessible in the event of fire. Covers for these are now being made as well as benches and tables for the park and pavilion.

The wild life of the marshes is showing the benefits of increased protection and is rapidly increasing in numbers. The quail (Bob White) have passed the winter safely and are now evidently becoming established for they are fairly plentiful within the park, as are also the ringneck pheasants. Muskrats, too, are abundant.

The migratory songsters, including robins by the hundreds and bluebirds in limited numbers, appeared about February 20 joining a large colony of jays that wintered within the park.

APPENDIX No. 9

REPORT OF THE HONORARY SUPERINTENDENT OF FORT ANNE PARK L. M. FORTIER, ANNAPOLIS ROYAL, N.S.

Fort Anne, redolent of history and romance and a beauty spot as well, is attracting a larger number of visitors each year. Fully eight thousand persons visited the fort in the year just closed, of whom 4,775 registered.

There have been many additions to the museum and we have now four rooms and two corridors in the old "Officers' Quarters" filled with objects of interest, and the task of showing and explaining them to visitors is no light one.

The most noteworthy event of the past year was the historical celebration on the 31st of August, when tablets were unveiled in the fort commemorating (1) the 300th anniversary of the Charter of Nova Scotia, (2) the 200th anniversary of the sitting (in this fort) of the first court administering English Common Law in what is now the Dominion of Canada, and (3) the 100th anniversary of Haliburton's arrival in Annapolis Royal. These three splendid memorials are now placed, one outside and the other two inside the Administration building in Fort Anne. A volume is about to be published by the Historical Association of Annapolis Royal giving an account of the ceremonies connected with the erection of the tablets and verbatim reports of the speeches made and papers read on that occasion.

APPENDIX No. 10

REPORT OF THE ST. LAWRENCE ISLAND PARKS

The island reservations in the St. Lawrence river attract each year an increasing stream of visitors. On some of the larger islands near Brockville and Morrisburg picnickers sometimes number as many as a thousand a day, and each island has its quota of permanent campers throughout the season. It is estimated that approximately 30,000 people make use of the parks during the summer, which is good evidence of their public value.

The new Broder park, which is one of the largest and finest of the islands, has become a very popular resort and there is never a day throughout the season when its bathing beach and recreation grounds are not occupied by happy picnickers. A comfortable pavilion was erected last year. In the other parks the work consisted of the usual repairs to wharves, painting, and clearing.

CANADIAN NATIONAL PARKS

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Park	Location	Date of Establishment	Area	Special Features
Rocky Mountains park...	Alberta, east slope of Rockies.	1885	2,751 square miles.	Ideal mountain playground containing the two famous resorts, Banff and Lake Louise, with much of finest scenery of east slope of Central Rockies. Massive formation of stratified sedimentary rock, upper slopes bare, worn and castellated, or glacier crowned, lower slopes covered with luxuriant forests and flower carpeted alplands. Glacier-fed lakes of exquisite colouring, wild deer, goat, sheep, elk, etc. Recreations: alpine climbing, walking tours, riding, boating, swimming, golf, tennis and motoring, winter sports—ski-ing, tobogganing, ski-joring, snow-shoeing, skating, etc.
Yoho park.....	British Columbia, west slope of Rockies.	1886	476 square miles.	Rugged scenery of west slope of Rockies, narrow transverse valley of Kickinghorse, precipitous peaks, large number with permanent ice caps or glaciers, wonderful Yoho valley with falls over 1,200 feet in height. Four great snowfields at head. Natural bridge, Emerald lake, lakes O'Hara and McArthur.
Glacier park.....	British Columbia, summit of Selkirks.	1886	468 square miles.	More massive formation of old range. Peaks worn down almost to timber line crowned with innumerable glaciers; luxuriant forests, alpine flower gardens. One of the best centres for alpine climbers and students of glacier formations, Illecillewaet and Asulkan valleys and glaciers, Nakimu caves, Marion lake, Rogers and Baloo passes.
Revelstoke park.....	British Columbia.....	1914	95 square miles.	Fourteen-mile motor drive up Mt. Revelstoke affording panoramic views of Columbia and Illecillewaet valleys, Clach-na-Coodin icefield, lakes Eva and Millar. Winter sports resort, game reserve.
Kootenay park.....	British Columbia.....	1920	587 square miles.	Highway park extending 5 miles on each side of New Vermilion-Sinclair section of Banff-California highway. Passes through wonderful and practically unknown mountain scenery. Historic rivers, towering canyons, Briscoe range, Ice lake, Sinclair canyon and Radium Hot Springs. Bear, deer, caribou and sheep
Jasper park.....	Northern Alberta.....	1907	4,400 square miles.	Immense mountain wilderness, partly unexplored, rich in historic associations. Numbers of unclimbed peaks, glaciers, snow fields, canyons, innumerable lakes of wonderful colouring. Athabaska valley, Maligne lake, gorge and canyon, Mt. Edith Cavell, Miette Hot Springs, Mt. Robson, highest known peak in Canada. Largest big game sanctuary in world.

ADMINISTERED BY DOMINION PARKS BRANCH' DEPARTMENT OF THE INTERIOR

Park	Location	Date of Establishment	Area	Special Features
Waterton Lakes park.....	Southern Alberta, adjoining U.S. Glacier Park.	1895	220 square miles.	Mountains noted for beauty of colouring; lovely lakes, waterfalls and snow-peaks, excellent trout fishing, favourite camping resort.
St. Lawrence Islands.....	Ontario.....	1905	140 acres.....	Thirteen islands and one mainland reservation among the Thousand Islands of the St. Lawrence river equipped for the use of summer campers and visitors.
Broder park.....	Ontario.....	1919	20 acres.....	Additional island opposite Morrisburg recently added to above reservation.
Pt. Peolee park.....	Ontario, on lake Erie.....	29th May, 1918	4 square miles.	Most southerly point in Canada; northern limit of many migratory birds; summer resort and bird reserve; unique fauna and flora.
Vidal's Point.....	Saskatchewan.....	31st Oct., 1921	17-2	Recreational area on Lake Katepwa, Saskatchewan.
Little Manitou Lake reserve.	Saskatchewan.....	Reserved by O. of M.	Vacant lands around lakes.	Salt lake, health resort.
Tar Sand Reserve.....	Alberta.....	" "	1,280 acres.....	Bituminous sands reserved for use on Park roads.

ANIMAL PARKS AND RESERVES

Buffalo park.....	Near Wainwright, Alberta.....	1907	158-75 square miles.	Fenced enclosure, home of the Government's greatest buffalo herd—5,000 buffalo, also moose, elk, deer, yak and cattalo.
Elk Island park.....	Near Lamont, Alberta.....	1899	16 square miles.....	Smaller fenced enclosure contains about 200 buffalo, also moose, elk and deer.
Foremost antelope reserve.	Southern Alberta.....	Reserved by O. of M.	9 square miles.....	Fenced reserved containing about 100 antelope.
Moose Mountain buffalo reserve	Saskatchewan.....	" "	2-25 square miles.	Proposed buffalo park.

HISTORIC PARKS

Fort Howe.....	St. John, New Brunswick.....	1914	19 acres.....	Associated with earliest history of province. Site of landing of U.E. Loyalists.
Fort Anne.....	Annapolis Royal, Nova Scotia.	1917	31-25 acres.....	Fort Annapolis Royal played important part in early history of Canada, first vessel constructed and first grist-mill erected in North America, the centre of civilization and progress in Acadia and of the fiercely contested struggle between France and England for the possession of the continents.

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DEPARTMENT OF THE INTERIOR, CANADA
HON. CHARLES STEWART, Minister; ~~ARTHUR~~ W. W. CORY, Deputy Minister

CANADIAN NATIONAL PARKS BRANCH
J. B. HARKIN, Commissioner

14 14

Annual

**REPORT
OF THE COMMISSIONER OF
CANADIAN NATIONAL
PARKS**

FOR THE YEAR ENDING MARCH 31,

1922/1923



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1924



ON THE GOLF LINKS, WATERTON LAKES NATIONAL PARK

Photo W. J. Oliver, Calgary.

DEPARTMENT OF THE INTERIOR, CANADA

Hon. CHARLES STEWART, Minister; W. W. CORY, Deputy Minister

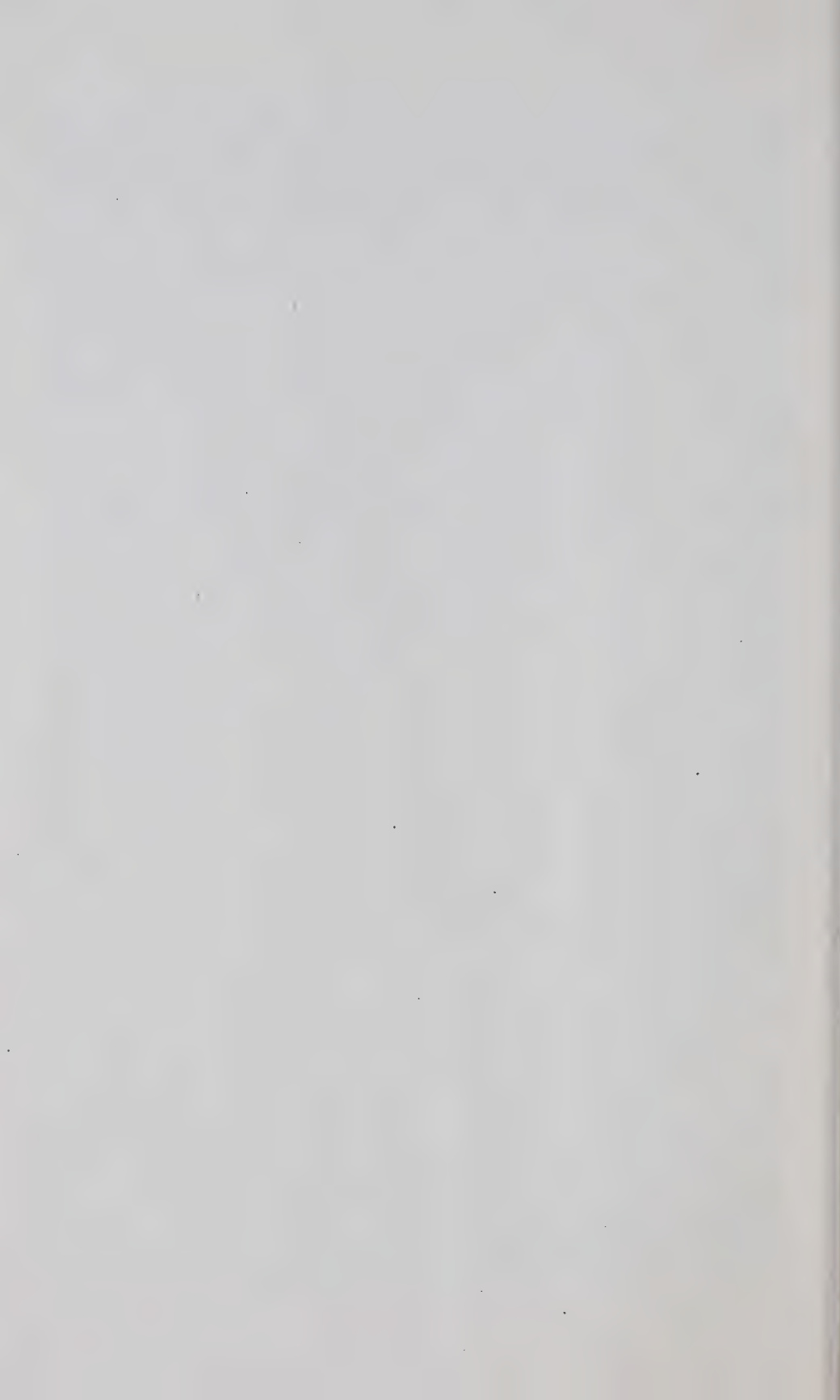
CANADIAN NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

REPORT OF THE COMMISSIONER OF CANADIAN NATIONAL PARKS

FOR THE YEAR ENDING MARCH 31,
1923

OTTAWA
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PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1924



CANADIAN NATIONAL PARKS

REPORT OF THE COMMISSIONER, J. B. HARKIN

The most notable event in the fiscal year 1922-23 in connection with National Parks was the completion of the Banff-Windermere Highway. This highway traverses the central portion of the main Rockies and connects Alberta and British Columbia by auto road. It is not only the first motor road across the central Rockies but it is also the last link in the great 4,000 mile system of highways known as the "Grand Circle Tour", which furnishes what is probably the most spectacular motor route in the world. For the past two years motorists in both countries have been eagerly awaiting the completion of this final arc. Now the circle is complete and motorists from the prairies may travel west from Calgary, Alberta, passing through the Banff national park and the magnificent alpine scenery of the central Rockies, touching Banff, lake Louise, the valley of the Ten Peaks, Moraine lake, across the Vermilion summit and through Kootenay national park to Invermere, B.C. From this point direct road connections can be made via Cranbrook, B.C., to Spokane and Seattle, Wash., Vancouver and Victoria, B.C., Portland, Ore., San Francisco, and Los Angeles, Cal. Returning the road swings east to the Grand Canyon, thence north via Salt Lake City, Yellowstone and Glacier national parks to the International Boundary and thence to Macleod and Calgary. From Macleod a diversion of 35 miles gives access to Waterton Lakes national park, the beautiful reservation in southern Alberta, noted for its fine scenery and unequalled fishing. The western section of the Grand Circle is known as the "California-Banff Bee Line", the eastern, the "Grand Canyon Route." With their extensions these roads make up a great international park-to-park highway system which touches twelve national parks in the United States and three in Canada.

Within Canadian territory there is also a smaller circle—the noose in this great scenic lariat—which is known as the "Canadian Rockies Circle Tour." This is formed by the Transprovincial highway over the Crowsnest pass, which connects with the California-Banff Bee Line at Cranbrook and with the Grand Canyon route at Macleod, completing the circle of 600 miles, throughout every mile of which the motorist is either within or in full sight of the Rockies.

About 1911 the project was first formulated and the matter brought to the attention of the Provincial and Dominion Governments. Preliminary surveys were undertaken and Sir James Hector's observations with regard to the feasibility of the Vermilion route were recalled. Engineers of the British Columbia Government reported that this route offered the most favourable way of travel for a main motor highway through the Rocky mountains and that for scenic grandeur and location it could not be surpassed.

As a result of conferences between the two provinces of British Columbia and Alberta and the Dominion Government it was agreed that the province of Alberta should build the section from Calgary to the eastern boundary of Banff



WILD BIGHORN SHEEP ALONG THE BANFF-WINDERMERE HIGHWAY

Photo W. J. Oliver

national park, the province of British Columbia the section from the Windermere valley to the Vermilion summit on the western boundary of the park, and that the Dominion should build the section through the national park uniting the other two.

In 1914 the road was open from Calgary to the Great Divide and the Government of British Columbia had constructed about twelve miles on the western section, work being carried on from both ends of the road. Owing to the outbreak of the war the progress of the work in British Columbia was unavoidably interrupted and in 1919 a new agreement was entered into by which the Dominion Government undertook to complete the remaining 53 miles of road by January, 1924. In return the province of British Columbia agreed to convey to the Dominion an area of approximately 600 square miles traversed by the new highway, for national park purposes, an area now known as Kootenay national park.

The construction of a highway through unsurveyed mountainous country and so far from a base of supplies was attended with many difficulties. Railheads at either end were seventy-three miles apart and heavy snowfall during the winter months considerably aggravated natural disabilities. In spite of this, however, construction was carried on almost without interruption from the time of commencement and the road was completed by the autumn of 1922 or more than a year before the date fixed upon by the agreement.

Construction of the Vermilion-Windermere section presented many difficulties not only on account of the mountainous character of the country but owing to the long distances from railhead. From the crest of the Rockies, which the road crosses via the Vermilion pass, the road drops down the abrupt western slope of the Rocky Mountain range proper and then again ascends to cross the Brisco range, descending to the floor of Sinclair valley and through the thrilling Sinclair canyon to the Columbia. Forty miles of the road had to be cut through virgin timber, fourteen bridges had to be constructed and the road finally carved through the huge walls of the Sinclair canyon.

The railheads, Castle (Alberta) and Firlands, (British Columbia) were 73 miles apart. This meant that supplies for the central portion had to be transported by trucks or wagons over great distances. During the winter of 1920-21 the snow sometimes lay as deep as four or five feet on the passes and it often took days for the supply teams to reach the end of the road. About 60 miles of "tote" road were kept open during the past two winters.

Every mile of the new highway has been laid out so as to afford the motorist the finest views of the incomparable scenery as well as the easiest grades. The region is practically virgin country and it embraces some of the most magnificent scenery in the Rockies. The route is one that has been followed in the past by several pathfinders, chief of whom was Sir James Hector, geologist with the Palliser Expedition, who ascended the Vermilion on the famous journey which later resulted in his fortunate discovery of the Kicking Horse pass. The region is in fact so new that very few of the peaks bear names and fewer have as yet been ascended. A new world, rich in virgin attractions, is therefore opened both to the mountaineer and the motorist. The district abounds naturally in big game which is increasing rapidly and becoming very tame under the sanctuary conditions prevailing in the national parks. Wild goat, elk, moose, deer, and bear will all come within sight of the passing motor and a friendly Bighorn sheep will often dispute the right of way.

The road is to be formally opened on June 30 when representative speakers and visitors from the Dominion Government and from the provinces and neighbouring states are expected to be present.

TIMBER PROTECTION

The fire damage in the parks during the year has been comparatively light. Although the weather was dry and dangerous and great fires raged in different parts of the country, the fires within the parks' boundaries, with one exception in Kootenay park, were all reached and controlled before serious damage was done.

FIRES IN THE CANADIAN NATIONAL PARKS

	1922-23	1921-22
Timber burned.....	298½ ac.	2,614½ ac.
Grass burned.....	11½ "	1,643½ "
Cost of extinguishing.....	\$3,096 36	\$8,296 26
Number of fires.....	70	70

The constructive programme of organization and preparedness for fire protection was continued throughout the building season with the following results: Nine new wardens' cabins were built, one partly built, one recon-



A REST CAMP ALONG THE BANFF-WINDERMERE HIGHWAY

structed and one taken over from the Royal Canadian Mounted Police, seven repaired or added to, and three stables erected. New trails totalling 61 miles in length were built giving easy access to much heretofore difficult country. Sixty-seven miles of forest telephone lines were strung which will add materially to the fire protection service.

In Waterton Lakes park the air patrols from High River made daily tours over the park and in Kootenay and Rocky Mountains parks an inspection and

a selection were made for an aerodrome site and a number of landing places chosen for the proposed air patrols in these two parks.

Intensive training and examinations of the wardens of Jasper, Yoho, Waterton, Glacier, and Mount Revelstoke parks in the mechanical systems of fire-fighting were held. The fireguards in the prairie parks, Elk Island and Buffalo parks, were ploughed or harrowed as was necessary.

In Rocky Mountains park a new device was introduced by installing two large wooden tanks on Sulphur mountain which will act as reservoirs for water during the dry seasons, collecting and storing a supply from small rills which would not otherwise provide enough for pumps. Five portable pumps, with sufficient hose, were added to equipment during the year. A trial was made of another model high pressure pump which resulted in the purchase of one of these at the time and eight more were ordered for the 1923 season. A number of canvas tanks for the relay system and of military pack saddles were obtained and found very satisfactory in service.

For the year the wardens have travelled 217,770 miles on patrol.

TOWN PLANNING

Building plans in the various parks are now submitted to the architect of the Town Planning division and of those submitted during the past year in the majority of cases improvements were suggested and in many cases entirely new drawings prepared with a view to establishing more suitable and effective architecture in the various social settlements. In the course of time it is believed that this attention will greatly improve the appearance of the villages and towns from a modern town planning point of view.

New motor camping grounds were laid out at Banff covering 277 lots. Designs for nineteen shelters and two service buildings and a caretaker's lodge were supplied for buildings of log construction intended to harmonize with the parks environment and these have been erected. A new subdivision was laid out at Radium Hot Springs on the Banff-Windermere road and plans were made for the entrance archway buildings at this point. These buildings now in course of construction will contain, on one side of the archway, quarters for the warden and on the other side a rest room for visitors. Plans for a new subdivision at Marble canyon were made, for the improvement of Banff avenue and a comprehensive town plan for Canmore mining village with a view to the beginning of a model mining village movement within the parks. This involved studies of existing buildings, ownerships, improvement in appearance, arrangement and locations.

Studies were made with a view to future artistic development at lac Beauvert, Maligne canyon, Miette hot springs, Elk Island park, Brereton lake, Nora lake, Waterton lakes, forts Chambly and Lennox, and Vidal's point.

Tentative plans were made showing possible locations for national parks in the Maritime Provinces and in the Gatineau district of Quebec and sketch plans for standards for historic sites. Plans were made for a summer colony at lake Edith, Jasper park. Reports and plans were prepared on Fort George, Garrison Reserve and Fort Missassagua on the Niagara front, after visits paid to the sites by the town planning adviser.

Educational work was carried on in the shape of press articles on town planning matters and correspondence with various groups in different parts of Canada with a view towards the establishment of local town planning organizations; lectures were given at different universities, towns and cities, and at Muskoka Assembly by members of the staff; and lantern lectures were issued to country societies and schools. Material was prepared for the *Town Planning Journal* and the Town Planning Institute of Canada.

Exhibits of town planning material were sent to the annual town planning conference in Ottawa and to a town planning conference in London, England.



NEAR SINCLAIR CANYON, BANFF-WINDERMERE HIGHWAY

ANIMAL LIFE AND FARMING OPERATIONS

Owing to the sanctuary afforded, all wild life in the various parks continues to thrive and multiply. In view of the decrease and extermination of the larger game mammals throughout most of the American continent this fact is very encouraging.

Buffalo.—A census of the buffalo herd taken on March 21, 1923, resulted as follows: Buffalo park, 6,780; Elk Island park, 281; Rocky Mountains park, 16; total, 7,077. The census for March 21, 1922, was 6,315. This shows an increase for the year of 762. The increase would have been larger but for the fact that 366 were slaughtered, died through natural causes or were otherwise disposed of during the year. In Buffalo park at Wainwright the buffalo have outgrown the capacity of the park owing to a succession of dry years and natural increase amounting from 1,000 to 1,500 annually. It was found that extensive feeding operations were necessary during the winter months and for this reason the department arranged for the slaughter of 250 of the older buffalo bulls, as an experiment. The products from these animals, consisting of meat, heads and robes, are being placed on the market. Owing to the fact that only old males were killed it was considered that the meat could best be utilized as pemmican. The department arranged for the manufacture of this meat according to the original Indian recipe. The work is being carried on under the supervision of a park official who is familiar with the manufacture of pemmican and who is being assisted in this work by a number of Indians. From the samples obtained and a number of reports from old-timers and people who have used pemmican it has been found that the quality is equal to that of the original product. It is expected that this food will be of great benefit and service in the outlying parts of Canada. Already extensive orders have been received from northern Canada.

Numerous requests for donation and loan of animals were received from zoological gardens from all parts of the world, particularly from cities in Canada, United States, Ireland, and Scotland. To show a spirit of co-operation in the conservation of wild life, these requests were complied with whenever possible. All expenses in connection with these transactions are borne by the consignees. Three elk were donated to the Pentteton district of the Okanagan valley for the propagation of the species in that district. A number of mounted heads of buffalo, moose, elk, Rocky Mountain sheep, and goat were loaned for exhibition purposes.

Antelope.—The antelope herd in Nemiskam reserve continues to thrive and there are now 130 in the reserve, an increase of 30 during the past year. This appears to demonstrate that antelope can be successfully bred in semi-captivity. An endeavour is being made to capture another herd of antelope and transfer the animals to Nemiskam reserve. The creation of another reserve, or reserves, for these animals is now receiving attention. The present immediate necessity for this is occasioned by the fact that notwithstanding the protective measures now used, the animals outside Nemiskam reserve are being killed, and that the small scattered wild herds now remaining will soon be wiped out if still further measures are not taken for their protection. During the past winter provision was made for the purchase of fodder for a band of these animals, which it was reported were likely to die from starvation due to their inability to gather food owing to the depth of the snow.

Wolves.—Investigations in connection with the wolf menace have been carried on and taken up with the provincial authorities. It was thought that to combat the menace successfully the provincial and federal authorities should co-operate.

The question has been discussed with the provincial authorities but a definite working basis has not yet been defined.

Twelve persons were appointed temporary honorary park wardens to pursue wolves into Waterton Lakes park, which, it has been reported, have been molesting stock.

Bears.—A polar bear ten months old was secured for the Zoo at Banff. This bear was obtained at Chesterfield inlet by Sgt. Douglas of the Royal Canadian Mounted Police.

Fishing.—No change was made in the regulations during the past year. A few lakes where excessive fishing had been carried on were closed to give the fish a chance to increase. On the whole fishing was reported as being quite satisfactory throughout the different parks.

In Jasper park a number of lakes do not contain fish. Special investigation is being carried on with a view to stocking these lakes, which will be a great benefit to the park from a tourist point of view.

Permits.—Permits to collect a stated number of birds and mammals in some of the parks, for scientific purposes, were issued during the year to four naturalists of recognized standing.

Experiments.—Sunflowers for buffalo food were sown for experimental purposes in Buffalo park last year. The animals, particularly the buffalo, took to the food very readily and it was apparently relished. A larger area will be sown this year.

Buffalo wool has been sent out to manufacturers for experimental purposes. More wool is being gathered for this purpose. Final reports have not as yet been received.

The superintendent at Buffalo park reports progress in experimental cross-breeding now being carried on in that park by the Department of Agriculture. During the month of April, 1923, one of the domestic cows gave birth to a hybrid heifer calf from the buffalo bull, and two others had heifer calves from the young yak bull. All are doing nicely and are fine healthy specimens.

Revenue from Farming Operations

8,779 bushels oats (threshed) at 40 cents.....	\$ 3,511 60
1,610 tons hay at \$16 per ton.....	25,760 00
175 tons straw at \$5 per ton.....	875 00
26 tons green fodder at \$33 per ton.....	858 00
Total.....	\$31,004 60

PUBLICITY

In view of the opening of the first motor road across the central Rockies a special campaign of publicity was inaugurated early in the present year and 25,000 copies of an attractive illustrated brochure were distributed to motor clubs and similar organizations. This booklet contains the history and geography of the Banff-Windermere road, noting the main features of tourist interest. Through the co-operation of the Department of Immigration and Colonization, the Canadian Immigration officers in the United States assisted largely in the distribution of the work and of suitable maps. The Canadian Trade Commissioner in New York, Mr. Frederick Hudd, assisted in special publicity work in that city and arranged for the distribution of a large number of the pamphlets and also for the issue of special publicity items and magazine articles in connection with the opening of the road. About 2,000 copies of the booklet were sent to the Canadian Pacific Railway Company, at their request, for distribution at their offices and a similar number to the president of the

Calgary Good Roads Association which is undertaking on its own behalf a special campaign in connection with the new highway. It was found necessary to prepare a new issue of 15,000 copies.

Through the co-operation of the Department of Immigration and Colonization large pictures of scenes in the parks were framed and sent to sixteen of the Canadian Immigration agents in the western states. Six of these were sent to each office with instructions to forward them to the next office after two weeks. This will insure a circuit of distribution of 96 different pictures in the respective offices.

An exhibition of enlarged views of scenes in the Canadian national parks, particularly along the new highway, was held in the Railway Committee room



BOW VALLEY, FROM BANFF SPRINGS HOTEL, BANFF NATIONAL PARK

of the House of Commons, which was viewed by about 260 members and senators. By arrangement with the Exhibition branch enlarged pictures of scenes in the parks were also supplied to any members who applied for them for use in their rooms in the House of Commons.

Requests for "Through the Heart of the Rockies and Selkirks" continue to come in steadily and several hundred letters of appreciation have been received. A special distribution of this booklet was made through the office of the Canadian Immigration service throughout Great Britain and the Continent. Copies were also sent to the principal clubs throughout the United Kingdom and to a number on the European continent. This booklet is now almost exhausted and a new edition may be necessary for the coming year.

A small folder entitle "What to Do at Banff" was also published giving concise information with regard to roads and trails and points of interest for visitors to Banff, lake Louise and the Field district. This publication is intended for distribution within the park and the greater part of the issue was forwarded to the superintendent for such distribution. Altogether about 50,000 pamphlets were distributed and a large number of prints and slides were circulated.

The official lecturer continued his public lecture work in Ontario and Quebec and during the autumn of 1922 visited the western provinces where he addressed a large number of educational institutions and clubs of various kinds. In addition the branch furnished twenty-nine lectures accompanied by suitable slides. Moving picture films were loaned to different organizations.

A monthly news bulletin was inaugurated early in the year and distributed in English and French to newspapers all over the Dominion.

REVENUE

The total revenue for 1922-23 was \$77,112.95, a decrease of \$2,102.21 as compared with the previous year. This is due to the fact that the branch collected in 1921-22 \$2,877 for Northwest game licenses which were issued last year by the North West Territories Branch.

ROCKY MOUNTAINS PARK

Tourist Traffic.—The tourist figures for Rocky Mountains park were very satisfactory. The following is a summarized statement:—

Hotel	Canada	Home Country of Visitors			Total
		United States	Other Countries	Conducted Parties	
Banff Springs Hotel, Banff.....	2,639	12,608	963	252	16,462
Chateau Lake Louise, Lake Louise.....	1,877	17,525	1,001	883	21,286
King Edward Hotel, Banff.....	3,695	418	341	.....	4,454
Mount Royal Hotel, Banff.....	1,359	1,177	103	.....	3,039
Bretton Hall, Banff.....	2,191	604	100	.....	2,895
Homestead Hotel, Banff.....	1,463	311	42	.....	1,816
Alberta Hotel, Banff.....	983	203	14	.....	1,200
Hot Springs Hotel, Banff.....	413	15	3	.....	431
Totals.....	14,620	32,861	2,967	1,135	51,583

Summary

Total hotel registrations.....	51,583
Motorists.....	18,959
Campers.....	2,000
Roomers.....	1,700
Excursionists.....	5,500
Grand total.....	79,742

Government Baths.—There were approximately 5,000 more bathers accommodated at the Cave and Basin during the year than in any previous year. The total number was 49,077. At the Upper Springs the number registered totalled 21,476, which is a slight decrease from the record of the previous year due to the fact that during the last three months of the year there was a shortage of water at the springs and few bathers were admitted. The visitors came from such far distant parts as England, Scotland, Ireland, Australia, New Zealand, Italy, Russia, Africa, India, Channel Islands, as well as from the United States and all parts of Canada.

Motor Traffic.—The total number of motor licenses issued in Rocky Mountains park was 4,213, which is 721 more than last season and the total number of persons who entered the park by motor was 18,959. On 1st July, 281 licenses were issued, which is a record for any one day; 502 licenses were issued for the week ending July 31, which is a record for any one week and the total for the month of July was 1,518, which is again a record for any one month. The total number of cars from Calgary during the year was 2,761; other parts of Alberta, 129; other parts of Canada, 225; United States, 198. Twenty-nine different states were represented among the visitors.

Power Plant.—Owing to the closing down of the Bankhead mines, the Canadian Pacific Railway which owns the mines, notified the department that it would not be able to continue to supply Banff with electric light and power. Consequently the department had to take steps for the construction of an electric plant of its own. When the Calgary Power Company was given authority in 1911-12 to erect a dam at the outlet of lake Minnewanka and to use the lake as a storage basin provision was made in the contract that the Company must install a thimble in the dam to enable the department to use the natural flow of the Cascade river for power purposes. To meet the situation created by the closing of the Bankhead mines and the consequent need of a new source of electric power for Banff the department decided to take advantage of the power provision in the Calgary Power Company's contract. In December work on the necessary plant was commenced. The construction camps were erected, the pipe line surveyed and cleared and substantial progress made in the cutting of the necessary tunnel.

Government Town Sites.—A total length of 1,289 feet of new sewer was laid during the year and 1,933 feet was replaced. A fill of 15,000 cubic yards to finish the approaches to the new Bow bridge was undertaken in the spring and the approaches to the bridge were surfaced, foot paths constructed, and the gravity water system carried across the bridge. Periodical inspections by the sanitary inspector were made during the year of all restaurants, laundries, dairies, etc. Numerous improvements were made at Canmore. The summer garbage collection was continued and the main street was scarified, surfaced and rolled. A new street lighting system was installed.

Camping ground.—The Rundle Mountain camping ground situated very charmingly at the junction of the Bow and Spray rivers has attracted visitors to an unprecedented extent. Increased facilities were provided for the campers in the way of telephone, caretaker, cooking stoves, etc. This camp was inaugurated six years ago and the number of permits has risen from 73 to 527.

Golf Course.—All the bunkers, greens and fairways on the new golf course have been completed but the late spring retarded the normal growth of the turf. Owing to the fact that the course is situated at an altitude of 4,500 feet the average growing season is very short and night frosts are common.

Game.—A herd of elk from Yellowstone park, liberated in the park in 1920, has increased rapidly and small herds are now frequently seen on the motor roads in the vicinity of Canmore, Duthill, Anthracite, and Massive. Rocky Mountain sheep are also increasing noticeably. They can be seen on the southern slopes of the Sawback range at any time in large numbers and small herds often frequent the motor roads on the Banff-Castle road. Certain portions of the sheep range are now occupied by goats which have chased the sheep from the range. This is sufficient evidence of the increase in their numbers. They will not graze with sheep. Beaver are also increasing rapidly. A small colony has established itself on the Bow river a short distance from the golf links. In carrying out the policy of keeping noxious animals under control,

twenty-six coyotes, two wolverine, one mountain lion, and one lynx were destroyed during the year.

Trails.—The total length of trails now within the park is approximately 700 miles. During the summer months new trails were made from Stoney Creek summit to the mouth of the Dormer river, a distance of 17 miles; from Scotch camp on the Red Deer river to Indian Head on the Clearwater river, a distance of 15 miles; and from Spray lakes to the Kananaskis river, a distance of 12 miles.

Mosquito Control.—Mosquito control in the park areas is of the greatest importance since the advent of the mosquito coincides with the height of the tourist season. Mr. Hearle, of the Entomological Branch, Department of



HEAD OF ICE RIVER VALLEY, YHOHO NATIONAL PARK

Agriculture, superintended this work during the season and the operations were very successful. Most of the work undertaken consists of spreading kerosene oil over the breeding places of mosquitoes. The oiling covered an area comprised within the four-mile radius of the Banff townsite and very few mosquitoes were observable during the season.

Zoo.—At no time in the history of the zoo has such interest been manifested by tourists as during the last season. At all times during the day large numbers are seen viewing the animals and at feeding time difficulty is experienced in getting near the cages. During the year the following additions were made to the collection: One Polar bear cub; one tame coyote; two brown pelicans; one silver groundhog; one peacock; two osprey hawks; six magpies. By far the most interesting of the newcomers is the Polar bear cub, which is a great favourite with the visitors.

Animal Enclosure.—The animal enclosure situated two miles east of Banff, on the Banff-Calgary highway continues to be a great attraction to the tourists. Thousands visit it every year and now that the motor car can be driven over a fairly good road completely round the buffalo paddock the number of visitors is greatly increased.

Building Permits.—During the year twenty-seven building permits were issued. The estimated cost of this work is \$69,675.

Fire Brigade.—The fire brigade was called out sixteen times and was successful in preventing any serious damage. The estimated total loss for the year was approximately \$295. The personnel of this brigade is composed of citizens who volunteer their services, while the equipment and hall are supplied and maintained by the department.

Walking Tours.—Walking tours were again conducted by Mr. Wheeler. These tours provide for persons of limited means facilities for passing through some of the most beautiful spots in the park.

Tuberculin Tests.—During the month of November the annual tuberculin tests were made of the various dairy herds in the park by the inspector of the Department of Agriculture, assisted by the local sanitary inspector. Two hundred and fifty head were tested and of these only four reactors were found. These were slaughtered. Careful supervision is maintained over all dairies and as a result the milk sold in the park is of a very high standard, both as to quality and cleanliness.

YOHO PARK

There was a considerable increase of visitors to the park compared with the previous year. This was largely due to the additional camps that have been constructed for tourist service. The Canadian Pacific Railway has erected camps at lake O'Hara and Summit lake, while the capacity of the Emerald Lake chalet has been more than doubled, as was also the capacity of the Yoho camp. These camps, as well as the Wapta camp and the Y.M.C.A. camp at Field were all filled to the limit throughout the season. Two special camping grounds were laid out by the department and permanent cooking stoves erected, which were much appreciated by the public and tended to decrease the danger from fires.

Among the considerable works undertaken during the year in Yoho park was the dismantling of the high trestle bridge at Ottertail which was successfully executed with a comparatively small loss of material. From this structure about 295,000 feet of timber was salvaged as well as several tons of bolts, nuts, washers, and truss rods. This stock of material has proved very valuable for all kinds of construction work and repairs.

In the spring a new bridge was built over the Kicking Horse river, about 14 miles west of Field, entirely from the Ottertail bridge material, and about 70,000 feet was used on the work. Late in the season other bridges were built over Sherbrooke creek, Emerald creek, and on the Yoho road near the 11 Mile post.

GLACIER PARK

At the Nakimu caves further exploration and development work was carried on in No. 4 cave. A total distance of 885 feet was made accessible to the public by the erection of stairways of concrete, walks and platforms. Shortly before closing down a new cave was discovered 430 feet long and 12 to 16 feet wide and approximately 100 feet high. The floor is composed of fine water-washed gravel. This is the largest cave so far discovered. It has been named "Grand Canyon".

The number of visitors to the caves was 660, by far the largest on record. Gasolene lanterns were used in place of carbide lights and the change was fully justified. The light is more brilliant and the lanterns are easy to keep



FROM ROGERS PEAK, GLACIER NATIONAL PARK

clean and generally more convenient. The total number of visitors to the Glacier House was 3,792, an increase of 569 as compared with the previous year. Of these 289 were Canadians, 3,254 came from the United States, 111 from other countries, and 138 unlocated.

MOUNT REVELSTOKE PARK

During the summer of 1922 Mount Revelstoke park and the Revelstoke district as a whole were for the first time opened up to motor traffic from outside points by the completion of the provincial motor road to the Okanagan. An immediate increase of traffic followed on the completed part of the Mount

Revelstoke highway, some of the visitors coming from as far away as southern California. The department continued the work on the section of the Mount Revelstoke auto road abandoned by the contractors, and completed the grading. A total of fourteen miles is now open on this road.

JASPER PARK

The past season has been by far the most interesting with the largest number of visitors in the history of Jasper park. This was due in large measure to the better facilities for visitors provided by the completion of the first unit of the Jasper Park Lodge built by the Canadian National Railways. This unit was ready for occupation on June 15. It provides excellent accommodation for 75 guests, with every modern convenience, such as electric light and hot and cold water. Further extensions to the Lodge are in progress which will supply accommodation for 300 persons and include a large central lounge and dining room.

The harmonious and artistic type of architecture selected makes the Lodge a distinct attraction to the beautiful surroundings at Lac Beauvert.

Jasper park was again honoured with a Viceregal visit during the past year. Their Excellencies the Governor General and Lady Byng, and their house party, spent nearly three weeks in the park. The visit of the British parliamentary party was also an interesting event of the season.

Roads.—Speaking generally the development has been most satisfactory. As a part of a plan for the opening up of hitherto inaccessible areas in this very large park the outstanding feature has been the completion of nearly 13 miles of the Edith Cavell highway including the extensive switchback tangents from the Astoria river to the upper benches leading to the foot of mount Edith Cavell.

Wild Life.—The success of the experimental herd of wapiti has exceeded expectations. The surviving 85 from the 100 so kindly sent by the United States Government have now multiplied to 400. The largest herd have adopted the area around lakes Patricia and Pyramid as their range and more than 100 have been seen there at one time. Another large herd of more than 100 range at Buffalo prairie. More than 100 deer indigenous to the park, between 50 and 100 Rocky Mountain sheep and goats, besides some of the Douglas or large mountain caribou have been seen within an area of approximately 5 square miles of Buffalo prairie. As the Douglas caribou is believed to be gradually disappearing in the northern part of its range it is gratifying to know that this animal is found in Jasper park. It is estimated by the wardens that there are approximately 100 living within the park and that the number of animals is gradually increasing.

Moose are also increasing noticeably, owing doubtless to the sanctuary offered them in the park, since they have been much harassed by hunters in the old ranges outside the park boundaries. There has been a marked increase in the fur-bearing animals. Beaver, marten, fisher, and mink are flourishing everywhere. The beaver in particular are getting very numerous and wonderfully tame. Bears are increasing very rapidly, particularly black and cinnamon, in the Athabaska valley. Grizzly bears are very plentiful both in the Snake Indian and Rocky River valleys.

Among the game birds the prairie chicken show most manifest evidence of increase. They are migrating to the eastern portion of the park and raising large and healthy looking broods. Here, too, are signs that they are aware of sanctuary.

Fish.—The outstanding feature in connection with fish has been the success of the installation of ouananiche and Atlantic sea salmon in Pyramid lake. The best catches ever known were made during the past season.



FALLS ON THE SNAKE INDIAN RIVER, JASPER NATIONAL PARK

Photo. W. J. Oliver

Building Permits.—The value of building permits issued during the year was: Jasper townsite, \$13,300; Lac Beauvert, \$15,900; Brule, \$40,200; Lake Mildred, \$100; making a total of \$69,500. A boulder-and-concrete garage was erected for park service, also three standard cabins.

Reconnaissance.—The reconnaissance of the northwestern portion of the park, undertaken by the chief inspector, the supervising warden and a party of wardens accompanied by a government photographer supplied much needed data on topography, wild life and scenic features which hitherto had been unknown.

Golf Course.—Satisfactory progress was made in cutting and clearing the nine-hole golf course laid out immediately east of Lac Beauvert and in close proximity to the Lodge.

WATERTON LAKES PARK

The effect of the general economic depression has been felt in the decreased use of the park by local patrons. On the other hand foreign tourists are more in evidence and the wider advertisement which the park is receiving may be expected to reverse the record of this year in the immediate future.

The opening of the new subdivision has resulted in thirty-four applications for building leases and the erection of twenty houses. This has involved much work in the clearing and grading of streets.

The new entrance road of approximately $5\frac{1}{2}$ miles from Waterton bridge to the townsite was built and was in general use by August 1. An offshoot of this road connecting with the new golf course was completed early and was in constant use by July 1. The gravelling of the Pincher Creek road was done in the fall. Great interest was evinced by visitors in the Akemina highway on which work was commenced in the winter of 1921-22. The great possibilities of this road are keenly appreciated since it will form, with other extensions, easy connection with the Banff-Windermere road and the United States park-to-park highway system. Considerable location work was done for new bridges and roads. The gasoline engine and saw-mill are proving very satisfactory in securing lumber for bridges and culverts and a considerable saving is thus effected.

Fifteen miles of new trails were constructed and the old trails improved. There are now 200 miles of trails in the park.

Twelve miles of new telephone line were completed from Belly River station to Lee creek. This makes 60 miles of single wire grounded telephone now in operation.

The game regulations are strictly enforced. The menace of wolves and coyotes was largely met by the issue of hunting permits to honorary wardens. Wild life is continually on the increase, notably the mule deer and the Rocky Mountain sheep. White tail deer, though not numerous, are still to be seen. Beaver are becoming very plentiful and are found all over the park. As usual thousands of duck and geese took advantage of the lakes as a resting place during their migration in the spring and fall. A number of wild swan were seen during May on Muskilonge lake.

Fishing has always been a noteworthy feature of the park. Fine specimens of salmon trout and Rocky Mountain white fish, pike and cut-throat are found. Waters hitherto without fish have now been stocked. Egg planting in September was a new experiment and the results are being closely watched. If successful, the cost of restocking will be greatly minimized and backwaters, now inaccessible to pack horses, will be easy to stock.

The Golf Course.—Work on the golf course continued during the season and although it is still in a rough condition it has served numerous players. The course has a wonderful scenic location.

Camping.—Camp life has always been a leading feature of this park, and there is evidence that it is becoming increasingly popular. Considerable work was done in the early season in preparing the ground and clearing further areas. Three concrete stoves were erected which were in constant use. A special feature of the season was the advent of the Boy Scouts under the direction of the Scouts' Commissioner of Cardston and the surrounding districts, comprising about fifteen troops. By this means 100 boys received training and an ideal holiday. This was followed by a party of fifty boys in charge of the



BUFFALO AT THE NATIONAL BUFFALO RESERVE, WAINWRIGHT, ALBERTA

Photo. W. J. Oliver

Y.M.C.A. of Lethbridge. The suggestion was made that all local detachments at Lethbridge, Macleod, Pincher Creek, and Cardston should establish permanent summer camps in the park, the buildings to be erected by the boys as part of their training. The camping permits were slightly in excess of the previous year.

Farming Operations.—The initial efforts of 1920, when farming operations were first undertaken, are now bearing fruit as may be seen from the production record: 106 tons of green feed and 105 tons of hay. These products obviate the purchase of forage and its transportation from various railway points. Seed sown last spring should give ample hay to cover the whole year.

BUFFALO PARK

There were approximately 550 acres in crop during the year in Buffalo park, all oats; 100 acres new breaking, 200 acres summer-fallow, and the remainder spring ploughing. About 50 acres were cut for green feed, and from

the remainder 8,779 bushels were threshed, which, after shipping 800 bushels to other Dominion parks, was sufficient for the requirements of the coming year, including seed.

Very good results were obtained from an experiment in growing sunflowers, and the experiment of feeding sunflowers to the buffalo in winter was also satisfactory, as well as interesting. It is expected that in the future the feed situation may be greatly helped by growing sunflowers at different points in the park.

By installing temporary dams in the Ribstone creek in the early part of the season, dry portions of the meadow were flooded resulting in a wonderful yield of hay. Approximately 1,300 tons were cut on this meadow, all of which was needed before the winter was over, owing to the poor grazing conditions on the range.

Fourteen miles of fireguarding south of the ford on the west side of the park were ploughed by hired teams and about three miles of new guard at the southwest corner of the park. The remainder of the fireguard work, amounting to 170 miles, was done by park outfits.

About four miles of new fencing were erected during the year. About three miles of the cattalo fence were moved to provide better trails leading to winter quarters for the buffalo, and sixty miles of the main fence were repaired; also four miles of the low fence around the hay meadow.

Two new branch telephone lines connecting the buildings in the cattalo enclosure and those at the abattoir with the main line were constructed, as well as considerable repairs made to existing lines.

Dry wood permits covering 725 cords were issued to settlers living in the vicinity of the park during the year; also permits covering 6,000 green willow pickets were obtained by the settlers.

A garage and store-room were constructed at the farm, and, in addition to constructing a boarding camp and barn at the slaughtering plant in winter quarters, the first unit of the abattoir, to be completed during the coming year, was built. The installing of an electric light plant at the farm has not only been an improvement but also a protection from fire.

Wild Animals.—Considering the poor condition of the range last fall the animals have come through the winter better than was expected. There have been large increases in every herd again this year. The natural increase in buffalo has been 991, and although approximately 300 were slaughtered during the past winter the count this spring showed the number of buffalo in the park to be 6,780.

The records show that there are at present the following animals in the park: Buffalo, 6,780; moose, 28; elk, 218; mule deer (estimated), 1,000; antelope 4, cattalo, 13; yak, 20; domestic cattle (cattalo experiment), 15; hybrid yak, 2; total, 8,080.

A pair of buffalo were shipped to the Zoological Society of London, England, during the year.

Breeding Experiments.—Considerable progress has been made during the year in connection with the cross-breeding experiment which is being carried on by the Department of Agriculture in this park. In addition to the hybrid buffalo calves which arrived this spring, there are a number of calves from the yak-domestic cross, and the experiments so far are considered very satisfactory.

Visitors.—In September Their Excellencies the Governor General and Lady Byng, together with their party, visited Buffalo park. The various kinds of animals were rounded up for the occasion and the members of the party expressed great interest in the animals.

Entries in the registers kept show that 8,000 tourists visited Buffalo park during the year, most of these travelling by motor.

ELK ISLAND PARK

This year the Department took over 34 sections of the Cooking Lake forest reserve to be fenced and added to Elk Island park. This will extend the total area of the park to 32,000 acres and will much relieve the present overcrowding of animals and make room for the addition of a goodly number of elk, moose, and deer within the new enclosure. The land affords excellent pasturage with several small lakes.

With the arrival of spring the usual repairing and cleaning up of the grounds were undertaken. New seats, tables, stoves and a speakers' platform were placed in the picnic grounds and new seats along the lake shore. To improve bathing facilities reeds were cut along the lake shore and during this operation an attractive beach was discovered, which serves admirably as a safe bathing place for young children. The building up of the sports' grounds is proceeding, and it is already proving a great boon to the campers.

Three hundred and fifty tons of hay were cut on Goose Lake meadow and with other additions a crop was put up of 400 tons. Permits to cut a total of 97 tons were granted to farmers living in the vicinity of the new park area.

The fireguard around the park was ploughed in July and October. There were no fires in the park, though one on the forest reserve close to Goose Lake hay meadow gave considerable anxiety. The staff were at hand night and day and no damage was done to the park. All the fences were repaired and 23 carloads of new posts were placed at convenient points for hauling to the fence site of the new park area.

Mammals and Birds.—The animals came through the winter in satisfactory condition. There was, however, a decrease of 15 in the number of buffalo. Thirteen of these were slaughtered and two were found dead. One crippled moose cow was shot and an aged bull moose died. The records show the number of animals as follows: Buffalo, 292; elk, 189; moose, 77; mule deer (estimated), 155. The coyotes are very plentiful in the park and owing to the heavy brush it is difficult to hunt them with dogs. By trapping and shooting seventeen of their number were destroyed.

The blue heron and turkey buzzard return each year and nest on the islands. Partridges, prairie chickens and ducks are almost innumerable. This year the ducks enjoyed the protection of the park until December 7, and while the ice was a foot thick elsewhere on the lake they still had a hole open for their operations.

Visitors.—The total number of visitors to the park for the year was 5,605 as compared with 5,443 last year.

POINT PELEE PARK, ONTARIO

Point Pelee national park extends from the mainland, in Essex county, Ontario, eight miles south into lake Erie and is the most southerly point of Canada. It is only within the last decade that its exceptionally mild climate and great beauty have been adequately realized, both as a holiday resort and as a bird paradise. Motor roads now exist that give access to the many attractions of the park and each year they are being extensively used.

During the past year extensive stretches of road-grading and cutting of abrupt angles have been carried out, together with moulding of road-beds and surfacing with a suitable depth of clay. The native soil is composed principally

of sand and requires clay as a binding material. This clay has to be hauled from a point considerably north of the park boundary. In the northern division of the park surfacing of the roads has been completed, except the refilling necessitated by motor traffic during the period of construction.

The early spring season permitted the planting of a number of willows on the shore in good time in proximity to the new bathhouse. The walnut trees planted the previous year have done very well. A number of the southern cacti beds have been enclosed in barricades built of rustic work which protect



GIRL GUIDES IN CAMP AT POINT PEELE NATIONAL PARK

them from injury. The luxuriance of these plants is always of great interest to visitors and is evidence of the mildness of the climate.

The construction in the northern portion of the park of a modern bathhouse and pavilion has materially added to the convenience of visitors. Driven wells have been installed in this section of the park and camping stoves have been placed there for cooking purposes. At the southern point of the park signs have been erected warning bathers of the dangerous currents which make bathing risky to the uninstructed.

Bird houses have been constructed in suitable places. The usual migrants visited the park and several species of the smaller songsters remained until late in December. Cottontail rabbits have become a nuisance and steps are being taken to reduce their number. Muskrats have increased. The quail have multiplied and the ring-necked pheasants are holding their own and are strikingly attractive to observers.

The number of visitors to the park was distinctly in advance of the year. 1921. The estimate for that year was 7,000 while the estimate for 1922 may be placed at 12,000. Motor traffic has nearly doubled in volume.

FORT ANNE PARK, NOVA SCOTIA

It is estimated that more than 10,000 persons visited Fort Anne during the year 1922, 5,026 of whom registered in the administration building and received personal attention, while the rest contented themselves with inspection of the fort and the grounds. There are now six rooms and two corridors of the administration building—the old officers' quarters of the fort—furnished as a museum, and an "Acadian Room" is in course of preparation. It is also intended to furnish one of the rooms after the style of two centuries ago when they were occupied by officers of the garrison.

An interesting addition to the museum is a facsimile of General Monckton's commission "As Lieutenant-Governor of the Garrison of Annapolis Royal in America," signed by George III in the first year of his reign. This is the gift of Sir Frederick Williams-Taylor, who is owner of the original document.

The most interesting event of the year was the return of the key of the fort by the Massachusetts Historical Society, an act of great courtesy and generosity on the part of the society, which has had possession of the key since 1786. Upon the surrender of the fort by the last French general in 1710, the key was taken to Boston by General Nicholson and passed to the possession of the Belknap family who handed it over to the Massachusetts Historical Society in 1786. Three prominent members of the society visited the fort on September 18 and formally returned the key as a gift to the Canadian nation.

The administration building has been repaired and re-roofed and much improved in appearance. The fort continues each year to attract more visitors and students of Canadian history.

ST. LAWRENCE ISLANDS PARKS, ONTARIO

The thirteen island national parks and one mainland reservation among the Thousand Islands of the St. Lawrence between Morrisburg and Gananoque have been largely utilized by campers and picnickers and they have continued to provide inexpensive and wholesome holiday facilities for the Canadian people in that part of the Dominion. Boy scouts, girl guides, school parties and similar organizations have now found it necessary to apply for camping permits well in advance of the season in view of the large demand for camping privileges. The parks are provided with stoves, pavilions, and other conveniences.

PROTECTION OF MIGRATORY BIRDS

The end of the fiscal year 1922-23 finds the Migratory Birds Convention Act in the sixth year of its enforcement and the marked increase in valuable forms of bird life, noticeable almost from the inception of the Act, is a matter for congratulation. This is particularly so as regards waterfowl. Reports show that a notable increase in numbers is apparent among these birds in all parts of the Dominion, except that a scarcity of brant and eider was noticeable along the Atlantic coast and in the gulf of the St. Lawrence, during the summer and autumn of 1922. This scarcity was probably due, in the case of brant, to a poor breeding season for this species, and in the case of eider to the invasion of the islands and the north shore of the gulf of St. Lawrence by a large number of white foxes which came down from the north in the early spring.

In July, 1922, the regulations under the Migratory Birds Convention Act were amended, the principal changes being adjustments of the open seasons in the different provinces, the inclusion of Alberta among the provinces, in which the sale of migratory game birds is prohibited at all times, the adjustment of bag limits, the alteration of the hours for shooting in Ontario, and the

inclusion of a clause making the possession of night lights and firearms in places frequented by migratory game birds *prima facie* evidence of night shooting.

Special seasonal local conditions created the necessity for the appointment of four full-time temporary bird officers in the Maritime Provinces, during 1922. In March, 1923, one officer resigned from the permanent organization for the enforcement of the Migratory Birds Convention Act. With the exception of these cases the permanent staff of officers is unchanged. The appointment of 118 honorary officers was completed during the year, while 5 resigned. This leaves the present strength of the honorary officers at 318 including fishery and forestry officers co-operating, distributed as follows:—Prince Edward Island, 2; Nova Scotia, 54; New Brunswick, 38; Quebec, 32; Ontario, 65; Manitoba, 11; Saskatchewan, 19; Alberta, 37; British Columbia, 49; Yukon Territory, 1; Northwest Territories, 10.

In addition, the members of the Royal Canadian Mounted Police, to the number of 1,129 officers and men, make a total of 1,447 honorary officers operating under the Act.

The number of prosecutions instituted by officers of the branch, during 1922-23, was 36, as against 86 cases during the fiscal year 1921-22. The large falling off in the number of violations occurring is, no doubt, largely due to the better understanding by the public at large, of the need of, and the benefits to be derived from, a greater measure of co-operation in the observance of the provisions of the Act.

Of the 36 charges laid, convictions were secured in 23 cases, fines being imposed totalling \$310, four cases were dismissed and nine charges were withdrawn, while three shot-guns, one revolver and two bird specimens were ordered forfeited to the Crown by the presiding magistrates.

During the summer of 1922 Mr. H. F. Lewis and three assistants spent three months on the Canadian Labrador investigating bird conditions there.

One hundred and seventy-three permits were issued during the year allowing the holders to take birds for scientific purposes, and 44 permits allowing the capturing of protected birds for banding purposes. Propagating permits to the number of 244 were issued, of which 23 were permits allowing the taking of protected birds, and 221 were permits to possess protected birds.

Permits to take migratory birds for propagating purposes, also allow the holders to possess, sell and transport such birds to another holder of a permit for propagating purposes, but in no case shall birds so taken be killed.

Permits to possess migratory birds for propagating purposes, also allow the killing of such birds in any manner except by shooting, and the unplucked carcasses or the plucked carcasses with heads attached, may be sold and transported except that birds taken under the first mentioned permit shall not be killed.

Additional restrictions affecting permits for propagating purposes have been imposed at the request of the different provincial governments as follows: Of the 23 permits allowing the taking of migratory birds, one, issued to a resident of British Columbia, does not permit the transportation of any birds taken under this permit; and one permit, issued to a resident of Alberta, does not allow the sale of any migratory birds taken under it. Of the 221 permits issued allowing the possession of migratory birds, five, issued to residents of Alberta, do not allow the sale of any birds possessed; 93, issued to residents of Ontario, do not allow the killing of any birds possessed; while nine, issued to residents of British Columbia, do not allow buying, selling, transportation, or killing of migratory birds possessed under permit.

During the year it was decided that a record of all birds banded in Canada should be kept by this branch and satisfactory arrangements were made with the Biological Survey at Washington, whereby this plan could be carried out.

Complete records of all birds banded in Canada and the United States have been kept at Washington for a number of years, and to avoid confusion only one set of band numbers is in use on the continent. These numbers are allotted and the bands are supplied to holders of banding permits by the Biological Survey.

Records of birds banded in Canada have been forwarded, by the banders, direct to Washington in the past, but under the new arrangements all holders of banding permits in Canada will submit their records to Ottawa, where copies will be prepared, after which the original records will be forwarded to Washington by this branch.

Since the inception of this plan 1,707 birds have been banded by Canadian bird banders, and records have been received of 118 returns of birds previously banded.

It is believed that much valuable information concerning bird migration will be collected in these records and it is proposed to publish in the *Canadian Field Naturalist* lists of birds banded in Canada wherever retaken and lists of banded birds taken in Canada wherever banded, so that all students of ornithology may have access to them.

Fifty-nine taxidermists' licenses were issued during the year, bringing in a revenue of \$59.

A round table conference of federal and provincial game officials was held in Ottawa on December 6, 7 and 8, 1922, under the auspices of the Canadian National Parks. All the provinces and territories, with the exceptions of British Columbia and Prince Edward Island, were represented at this conference, and a few other persons interested in the protection of birds and mammals attended. The proceedings of the conference were marked by a splendid spirit of co-operation, and all the resolutions adopted were adopted unanimously.

The resolutions dealt with many important matters, such as, a Dominion-wide educational campaign in the interest of wild life conservation; general prohibition of the sale of game; uniform adjustment of the bag limit for Canada and the United States; federal assistance for the provinces in controlling illegal shipment of game and fur; a gun license system for all hunting; alteration of present open and closed seasons for several species of birds; and protection of marine mammals.

The problem of controlling the wolf and coyote menace in the West was thoroughly discussed. The opinions of those taking part in the discussion were frequently at variance, but many helpful suggestions and interesting points were submitted.

It was obvious at the conference that both the provinces and the Dominion realize their distinct responsibilities in the matter of the guardianship and development of Canada's wild life resources, and that with intelligent conservation and utilization there is no reason why this natural asset should not be preserved and constitute a perpetual source of profit. It was felt that conditions in other countries, at least in so far as big game is concerned, are such that Canada is destined soon to enjoy a practical monopoly on this continent.

This branch was represented at the meeting of the International Association of Game and Fish Commissioners, held at Madison, Wisconsin, in September, 1922, and at the meeting of the American Game Protective Society, New York.

Many inspections were made during the year of areas recommended for reservation as bird sanctuaries and as a result action is being taken in connec-

tion with the establishment of sanctuaries on either Crown lands or privately owned lands in every province in the Dominion.

The need of public shooting grounds is becoming increasingly apparent and in this connection a number of areas have been recommended for this purpose. During the summer of 1922 inspections were made of numerous areas in Saskatchewan and Alberta and search is being made in the other provinces for vacant Crown lands suitable for this purpose.

That education is an important factor in wild life protection is fully appreciated by this branch and during the year 1922-23 posters, setting forth the provisions of the regulations under the Migratory Birds Convention Act, as applicable to whites and Indians, the restrictions against spring shooting, the molestation of swans and whooping cranes, were distributed to the number of 19,252.

Through the courtesy of the Post Office Department, the Canadian Pacific and the Canadian National Railways, posters, regarding the provisions of the regulations under the Migratory Birds Convention Act, were displayed at every railway station and post office in the Dominion.

Eighty-nine thousand two hundred and fifty (89,250) pamphlets on bird protection matters were distributed during the year, and in this connection it may be noted that the demand for the pamphlets "Bird Houses and Their Occupants" and "Bird Lessons" is so great that a reprint of 180,000 of the former was obtained in the autumn of 1922, and a reprint of 80,000 of the latter is now being prepared.

An order has recently been placed for the printing of 60,000 copies of a companion pamphlet to "Bird Houses and Their Occupants" entitled "Attracting Birds with Food and Water," and 12,000 copies of a pamphlet entitled "Facts about the Migratory Bird Treaty."

The members of the permanent staff gave 114 lectures during the year, most of which were illustrated by lantern slides. Motion picture films were also shown in many cases.

The library of lantern slides has been materially increased, 150 sets having recently been added. It now comprises 539 sets of slides covering 176 different species of birds. There are also in course of preparation some 230 sets from negatives loaned by the Department of Mines or from negatives, the right of reproduction of which has been purchased. Nine hundred and forty-one (941) slides were loaned to various bird protection societies, church societies, etc., during the last twelve months.

To encourage an interest in wild life protection matters among the boys of the Dominion, an arrangement was made whereby any boy scout passing the scout's naturalist test would receive a copy of "The Conservation of the Wild Life of Canada," by Dr. Gordon Hewitt. Up to the end of the fiscal year 414 of these books had been awarded.

HISTORIC AND PREHISTORIC SITES

Although the work of marking and preserving historic sites has only been in operation a short time satisfactory progress has been made.

Of the 700 sites to which the attention of the department has been called about 100 have been judged by the Historic Sites and Monuments Board to be of national importance and of these 27 have been acquired by patent and the virtual control of 14 others secured. Upon examination it was ascertained that six of these sites are already suitably marked and therefore require no further action at present. Ready co-operation is being accorded by provincial and local societies and organizations interested in the work.

Sixteen standard bronze tablets have been secured which it is proposed to erect on cairns constructed of rough field stone or large boulders.

An extended publicity campaign has been carried out through the press and the departmental bulletin in connection with sites selected for action in an endeavour to stimulate public interest regarding the early history of Canada.

The last report reviewed the steps taken with regard to sites selected for immediate attention. The following schedule contains a précis of additional action taken this year.

Maritime Provinces

Louisbourg, N.S.—Revised descriptions of the various properties included in the site were secured through the Department of Railways and Canals. An area of sixty-eight acres owned by that department has been leased to this department for memorial purposes.

Fort Cumberland, about four miles from Amherst, N.S.—Area five acres. Material for a fence was purchased and its erection partially completed.

Fort Edward, Windsor, N.S.—Area twenty-seven acres, on which are situated original blockhouse and ruins of officers' quarters. Blockhouse painted and matter of possible encroachment on property investigated.

Quebec

Fort Chambly, Chambly, P.Q.—Considerable progress has been made in connection with repair work on the exterior and interior of the massive stone walls to prevent further deterioration. A new roof was placed on the caretaker's quarters, and a fence around the cemetery. A collection of rare books, photographs and relics was added to the museum. The fort was visited by over six thousand people.

Fort Lennox, Ile-aux-Noix, P.Q.—Since the transfer of the site from the Department of Militia and Defence on May 18, 1921, considerable progress has been made in regard to the preservation of the old fort and general improvements have also been carried out on the island to make it attractive to tourists. These include the reconstruction of bridges on the east and south sides, the erection of two wharves, and two flag poles. General repairs were also carried out on the massive buildings, such as laying of floors, replacing of windows, painting of roofs, etc. A number of war trophies were secured and forwarded to the island where they have been prominently placed. A standard tablet will be placed at the entrance to the fort, also one on a suitable location on the island to commemorate the battle of Ile-aux-Noix. The increasing popularity of the fort is evident by the large number of tourists who visited the island last summer. These numbered about two thousand.

Battle of Eccles Hill (County Missisquoi), P.Q.—Site of the battle of May 25, 1870, between the Fenian Invaders and the Canadian Volunteers and Home Guards, the former being repulsed with heavy losses. A monument, erected four miles from Frelighsburg, in commemoration of this event, by the Dominion Government, together with the site on which it is located, was transferred from the Department of National Defence to the control of the Interior Department by Order in Council, of October 16, 1922.

Eastern Ontario

Glengarry Cairn, near South Lancaster, Ont.—Situated on Monument Island, St. Lawrence river, county of Glengarry. This cairn, of conical shape, fifty-two feet high and fifty-two feet in diameter at the base, with a winding staircase, was erected by the Highland Militia of Glengarry, which was con-

cerned with the suppression of the Canadian Rebellion of 1837-38, to commemorate the services of the distinguished soldier, Sir John Colborne, who commanded Her Majesty's forces in Canada at this critical period. The property was purchased from the Department of Indian Affairs and a caretaker has been appointed.

Fort Wellington, Prescott, Ont.—Situated on the Provincial Highway within the town limits and comprises an area of eight and one-half acres, on which are situated a blockhouse, caretaker's dwelling and two other buildings. Con-



GLENGARRY CAIRN ON MONUMENT ISLAND, ST. LAWRENCE RIVER,
near South Lancaster, Ontario

structed in 1812-13 as the main post for defence of the communication between Kingston and Montreal. Here was assembled the force which took Ogdensburg on February 22, 1813, and the troops engaged in repelling the invasion at the Windmill, November 11-13, 1838. The site has been transferred from the Department of National Defence to the control of the Interior Department by Order in Council.

Ernestown Shipyard, Bath, Ont.—Here was built in 1816 the first steamboat which navigated lake Ontario. A plot of land adjacent to the Provincial Highway at Finkle's point has been donated by Mr. Thomas Wesley Thompkins, upon which to have a cairn and tablet erected.

Point au Baril, Maitland, Ont.—Site of a small shipyard established by the French in the summer of 1758 near the village of Maitland. Here in April, 1759, they launched and completed two small ships of war, which were equipped and manned and continued to cruise lake Ontario until the conquest of 1760, when they both were taken. The site is privately owned by Dr. R. E. Webster, who has promised the Department of the Interior permission to place a tablet on the walls of an old tower located thereon.

Western Ontario

Mission of St. Ignace, Ont.—Situated in the township of Tay, on the farm of Chas. E. Newton. Site of Huron village captured by the Iroquois on March 16, 1649, and of the place to which Breboeuf and Lalement were brought and where they were tortured to death. No visible remains. An area of one and three-quarter acres, together with a right of way, has been donated to the department by Mr. Newton for the erection of a cairn and tablet.

Navy Island Shipyard, Ont.—Situated on Navy island, in the Niagara river, near Chippawa, Ont. Established under the direction of the military authorities in 1761 and maintained until 1763. Three small schooners and a number of smaller craft were built there. Owing to its inaccessibility, a monument and tablet are to be erected on the Niagara boulevard, opposite the island. Arrangements have been made with the Niagara Falls Park Commission for the erection of a monument.

Point de Meuron, near Fort William, Ontario.—Situated at the foot of the rapids on the Kaministiquia river. A portage point for the early fur traders and explorers. The de Meuron regiment wintered here in 1816. A site located at Pointe de Meuron Crescent has been secured for the erection of a cairn and tablet.

Port Stanley, Ont.—Situated at the mouth of Kettle creek. Site of arrival of Joliet in September, 1669, Dollier and Galinee in April, 1670, and the halt of Brock on his way to Amherstburg, Ont., August 9-10, 1812. The municipal council have, by resolution, donated a site at the junction of Bridge, Main, Joseph, and Colborne streets, for the erection of a cairn and tablet.

Western Canada

Northwest Rebellion, 1885.—It has been decided that the several sites associated with the Northwest Rebellion should be suitably marked.

Battle of Fish Creek, Saskatchewan.—Situated in a ravine on section 23, township 41, range 2, west of the 3rd meridian, about ten miles from Batoche. Site of the Battle of April 24 between Riel's forces and the troops under General Middleton. Legal Subdivision 15, was by Order in Council of May 24, 1916, withdrawn from the operations of the Dominion Lands Act and it was established a historical site under the control of this branch on January 17, 1922. A caretaker was appointed.

PRESENT WORK

In addition to extension of work on the foregoing sites, work is at present being laid out in connection with preserving and marking the following sites of national importance:—

- Fort Lawrence, near Amherst, N.S.
- Battle of Grand Pre, near Grand Pre, N.S.
- St. Maurice Forges, near Three Rivers, P.Q.
- Battle of Three Rivers, Three Rivers, P.Q.
- Second Battle of Laprairie, Laprairie, P.Q.
- Fort Sorel, Sorel, P.Q.
- Fort Longueuil, Longueuil, P.Q.
- Fort Charlesbourg Royal (Cap Rouge), P.Q.
- Tadoussac, P.Q.
- Three Rivers Massacre, Platon and Fort, Three Rivers, P.Q.
- Coteau du Lac, P.Q.
- Old Simcoe Building, Kingston, Ont.

Battlefield of Ridgeway, Ont.
 Weishuhn's Redoubt near Willoughby, Ont.
 Port Talbot, Ont.
 Point Pelee, Ont.
 Port Dover, Ont.
 Sandwich, Ont.
 Frog Lake Massacre, Alberta.
 Duck Lake Battlefield, Sask.
 Batoche, Sask.
 Cutknife Battlefield, Sask.
 Battleford, Sask.
 Battle of Seven Oaks, Winnipeg, Man.
 Fort Langley, B.C.

WORK FOR THE FUTURE

The following historic sites have been recommended for action by the Historic Sites and Monuments Board:—

Maritime Provinces

Champlain's habitation, Port Royal, N.S.
 Landing of United Empire Loyalists, St. John, N.B.
 Site of first printing press in Canada, Halifax, N.S.

Quebec

Hochelaga, Montreal, P.Q.	Chateauguay Battle and Blockhouse,
Fort Crevier, St. Francois du Lac, P.Q.	Allan's Corners, P.Q.
Battle of Lacolle and Lacolle Block-	Gaspé, P.Q. (Landing place of Jacques
house, Lacolle, P.Q.	Cartier).
Fort Remy, P.Q.	Fort Gentilly, P.Q.
Fort Cuillerier, P.Q.	Fort Rolland, P.Q.
Fort Senneville, P.Q.	Fort Verdun, P.Q.
Arbre-a-la-Croix (Cap Madeleine),	Madeleine de Vercheres, P.Q.
P.Q.	Lachine Massacre, 1689, near Montreal,
Battle of Riviere-des-Prairies (Coulee	P.Q.
Groulx), P.Q.	Battle of Cedres, above Montreal, P.Q.
Lachenaie, near Terrebonne, P.Q.	Fort St. Jean, St. John, P.Q.
Fort Ste. Theresa, near St. John, P.Q.	Fort Maisonneuve, at Pointe Calliere
Odeltown, P.Q.	Montreal, P.Q.
Battle of de Repentigny, P.Q.	

Eastern Ontario

Glengarry House, near Cornwall, Ont.
 Windmill Point, near Prescott, Ont.
 Chrysler's Farm, near Morrisburg, Ont.
 Gananoque, Ont.
 Fort Levis, Batteries at Adam's Point, near Cardinal, Ont.
 Fort Cataraqui or Frontenac, Kingston Ont.

Western Ontario

Southwold Earthworks, near St. Thomas, Ont.
 Mission of Ste. Marie I, near Midland, Ont.
 Mission of Ste. Marie II, Christian Island, Ont.
 Chippawa Battlefield, near Niagara Falls, Ont.
 Frenchman's Creek Battlefield, near Bridgeburg, Ont.
 Vrooman's Battery, near Queenston, Ont.

Battle of Cook's Mills, near Welland, Ont.
Battle of Fort George, near Niagara, Ont.
Battle of Beechwoods or Beaverdams, near Thorold, Ont.
Site of Tete de Pont Battery, near Chippawa, Ont.
Sault Ste. Marie, Ont.
Port Arthur, Ont.
Fort William, Ont.
Fort Nottawasaga, near Stayner, Ont.
Battle of the Longwoods, near Wardsville, Ont.
Fort Norfolk, Turkey Point, Ont.
Fort St. Joseph, near Richard's Landing, Ont.
Normandale Blast Furnaces, Normandale, Ont.

Western Canada

Clark's Crossing, now Clarkboro, about nine miles from Saskatoon, Sask.
Fort Pitt, Sask.
Fort Livingstone, Man.
Friendly Cove, Nootka Sound, B.C.

The Alpine Club of Canada

(Report prepared by the Secretary)

The club house had its usual quota of happy and contented guests all the summer season. The familiar climbs were made, but nothing original was attempted. Mount Norquay again proved a most interesting training climb. Many visitors came from the hotels to get information about the more remote mountain regions of Canada, and how best to visit them. The "facts" tourists pick up before visiting the mountains are often both remarkable and interesting. Members of European Alpine clubs seldom pass through Banff without making a call on the Alpine Club of Canada, which has become so well known since the congress at Monaco.

The most interesting and interested visitors were the delegates visiting Canada from both of the British Houses of Parliament, who examined the striking collections of maps and pictures of the Canadian mountain regions with great admiration and were strongly appreciative of the good work the club is doing for the country.

Mrs. Stone presented to the club, in memory of her husband, all the latter's albums of Canadian mountain views and a large collection of photographic slides. These treasures will be a source of continued pleasure to many, and the gift is greatly appreciated. The memory of Dr. Stone will ever be kept green.

Major E. O. Wheeler has presented the club with two very fine enlargements, sixteen by twenty-one inches in size, of photographs taken by himself while on the Mount Everest expedition of 1921. One represents Mount Everest itself taken from above the 20,000 foot camp in the Kharta valley, the other, that singularly magnificent mountain, mount Makalu, taken from the north. These will add further distinction to the already very fine collection of pictures at the club house.

Mrs. Daniel Davies, of Edmonton, presented a beautiful water colour painting from her own brush, "The Sisters of The Selkirks". It was greatly

admired. Mr. and Mrs. Maxwell, who at present live in the United States, gave a very handsome pair of andirons for the assembly room fireplace, a long needed and much appreciated gift. The guests at the club house came from all over Canada and the United States as well as from England, India and far away Australia.

REPORT OF THE ANNUAL CAMP AT PALLISER PASS

(Prepared by the Secretary)

The seventeenth annual camp of the Alpine Club of Canada was held at Palliser Pass summit from July 29 to August 12, 1922.

For the third time in its history the club held a camp at a long distance from the railroad and from any base of supplies. In 1913 a camp was held at Berg lake, at the foot of mount Robson; in 1920 at mount Assiniboine. Again as in 1920, advantage was taken of the exceedingly convenient camps of the mount Assiniboine walking tour route. Nights were spent at the Eau Claire, the fishing, and the trail centre camps. From the last the trail branched off that to mount Assiniboine and followed the Spray river to its head.

Palliser pass is the entrance to a magnificent mountain region which only became known to the world at large when the report of the Interprovincial Boundary Commission was published in 1916. It is, unfortunately, somewhat out of the way, but it is a country of the greatest interest. The mountaineering and the geographical public are looking forward to the issue of the second part of this report, in anticipation that other fine spheres of action may be revealed to them.

The camp was pitched close to Belgium lake at an elevation of somewhat less than 7,000 feet, in a most picturesque situation. The most prominent feature was mount Queen Elizabeth (of Belgium). Facing the ladies' quarters a striking waterfall came down from the Albert glacier above and the hillside was covered with mountain flowers. Late as it was in the season the glacier lilies (*Erythronium*) were plentiful, as well as other familiar friends.

A subsidiary camp was pitched at North Kananaskis pass in the centre of the British Military and Naval group. This was even more beautiful than the main camp and from it several good climbs were made. Close by was the striking Turbine canyon into which the stream from the Haig glacier drops by a circular funnel-like hole with a thunderous roar that suggests a turbine in action.

The climbing, on the whole, is more difficult than that surrounding the average camps of the club. Before the camp opened members had climbed—both first ascents—mounts Queen May and Birdwood. During the life of the camp first ascents were made of mounts King Albert, Maude, and Tipperary, and second ascents of mounts Jellicoe, Back, Sir Douglas, Beatty, and Queen Elizabeth. Mount King Albert was only conquered on the second assault.

The mount Sir Douglas party was a large one entailing slow going, and it was early in the following morning before the party reached home. The first party on mount King Albert was also benighted but in neither case was anyone the worse.

An attempt was also made on Sir Douglas from the Kananaskis camp, but it was found impracticable at about 800 feet from the top. On the same day mount Robertson was attempted via Haig glacier and the ridge from the col between Sir Douglas and Robertson, but the party had to turn back, reaching an impasse when almost at the top.

The return trip from Kananaskis to Palliser camp was made several times by way of the Haig glacier and the pass between mounts Robertson and Sir Douglas; thence by an unnamed glacier to the Spray valley. These glaciers had many glacier tables and interesting moulins.

The Swiss guides, kindly lent by the Canadian Pacific Railway Hotel Department, were Ernst Feuz and Rudolph Aemmer. As always, they gave excellent and highly appreciated service.

Among the guests present were Mr. A. L. Mumm, formerly vice-president of the English Alpine Club and a life member of the Canadian Club, who finds a charm in the Rockies of Canada different if not greater than that of the mountains on the three other continents on which he has climbed and explored. There were also two climbers of the early days, Sir James Outram, whose "In the Heart of the Canadian Rockies" is a mountaineering classic, and Rev. H. P. Nichols, of New York, whose name is associated with many of the early expeditions.

There were 107 placed under canvas, among them representatives of the Alpine Club, England, the American and Swiss clubs, the Appalachian Mountain Club, the Mountaineers, the Mazamas, the Sierra Club, and the Royal Geographical Society. Those present were drawn from the following portions of Canada, the British Isles, and the United States:—

Canada.—British Columbia, Alberta, Saskatchewan, Manitoba and Ontario.

British Isles.—England.

United States.—California, District of Columbia, Illinois, Massachusetts, Michigan, Minnesota, New Hampshire, New York, Oregon and Pennsylvania.

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DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister

W. W. CORY, Deputy Minister

CANADIAN NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

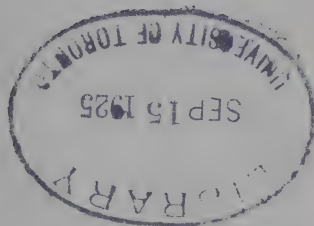
15th

Annual

REPORT OF THE COMMISSIONER OF CANADIAN NATIONAL PARKS

FOR THE YEAR ENDING MARCH 31

1923/1924



OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1925



EMERALD LAKE, AS SEEN FROM THE TOP OF BURGESS PASS-YOHO NATIONAL PARK.

DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister

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CANADIAN NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

**REPORT
OF THE COMMISSIONER OF
CANADIAN NATIONAL
PARKS**

FOR THE YEAR ENDING MARCH 31

1924

OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1925

CANADIAN NATIONAL PARKS

REPORT OF THE COMMISSIONER, J. B. HARKIN

The past year saw a substantial increase in the traffic to the Canadian National parks, indicating that both Canadians themselves and people from other countries are coming more and more to realize the wonderful opportunities for healthful recreation and exceptional enjoyment they afford. The tourist figures for 1923-24 totalled 250,026, or nearly 60,000 more than recorded the previous year. The figures are:—

	1924
Rocky Mountain park..	94,930
Jasper park..	10,072
Yoho park..	1,891
Glacier park..	4,176
Revelstoke park (estimated)..	3,500
Waterton Lakes park..	16,695
Buffalo park..	5,650
Elk Island park..	7,812
Point Pelee park..	49,300
St. Lawrence Island parks	45,000
Fort Anne park..	11,000
Total..	250,026

For the first time Jasper National park was able to offer extensive modern hotel accommodation and its immediate success as a tourist centre was one of the outstanding features of the year. The artistic and restful bungalow hotel, "Jasper Park Lodge," built by the Canadian National Railways, met with instant favour from the travelling public and was crowded to capacity practically throughout the season. The great success of its initial season has led the railway to undertake the construction of additional buildings which will nearly double the accommodation.

Banff and Lake Louise showed a combined advance of 15,000 visitors, due in part to the increase in motor travel resulting from the completion of the Banff-Windermere highway. The growing use of the St. Lawrence Island parks, Waterton Lakes and Point Pelee parks is considered a matter for congratulation in view of the democratic service these areas are rendering to Canadian people. Visitors to the last two are largely family parties travelling in their own motor cars who are thus enabled to enjoy healthful outing at slight expense.

The most important feature of the year's work was the completion of the Banff-Windermere highway, which was officially opened for traffic on June 30, 1923. The formal ceremonies took place at Kootenay Crossing, B.C., in the presence of distinguished representatives of the Dominion, Provincial and United States Governments, the Canadian Pacific Railway and other organizations. At nine o'clock in the morning cars left Banff and Windermere, arriving at the scene of the opening about noon. Hon. Dr. J. H. King, Federal Minister of Public Works, representing the Dominion Government, presided at the simple but impressive ceremony and at its conclusion the Hon. Dr. R. H. Brett,

Lieutenant-Governor of Alberta, and the Hon. Walter Nichol, Lieutenant-Governor of British Columbia, severed the ribbons barring the highway and the first motor way across the Central Rockies was declared open to the motorists of the world. Among those present were: Hon. J. H. King, M.D., Minister of Public Works; Hon. R. H. Brett, M.D., Lieutenant-Governor of Alberta; Hon. Walter Nichol, Lieutenant-Governor of British Columbia; Hon. Herbert Greenfield, Premier of Alberta; Hon. John Oliver, Premier of British Columbia; Hon. W. J. Bowser, Leader of the Opposition in the British Columbia Legislature; Harvey M. Toy, of San Francisco, representing the Governor of California; J. Ross Eakins, representing the United States National Parks Service and the Department of the Interior, Washington, U.S.A.; D. C. Coleman, Vice-President of the Canadian Pacific Railway; Don Doig, Manager of the Automobile Club of Southern California; A. O. Wheeler, Director of the Alpine Club of Canada; Jas. W. Davidson, President, Calgary Good Roads Association; R. Randolph Bruce, Invermere, B.C., one of the originators of the Banff-Windermere highway project. Writers and journalists were present from Canada, the United States and Europe. Most of the chief Canadian cities had newspaper men in attendance while special representatives secured an account of the proceedings for Boston, Pittsburgh, New York, Chicago, Portland, Tacoma, Seattle, Minneapolis, Los Angeles and San Francisco journals. In addition, syndicates and magazines obtained particulars of the occasion through special correspondents.

The wet season and the poor condition of some of the connecting roads militated against a large travel, but in spite of this fact over 8,000 cars went over the road.

Motor Travel.—The motor campsite at the junction of the Bow and Spray rivers at Banff was extended and completed and is now one of the most modern and best equipped in the West. It provides accommodation for the increasing number of motor tourists. The number of permits issued to camping parties there last year totalled 1,693, or more than three times that of the previous year.



MOUNT GEIKIE—THE RAMPARTS—JASPER NATIONAL PARK

The development of a townsite at Lake Louise with tea rooms, stores, etc., has also met the need of many motorists and numbers availed themselves last year of the opportunity of staying over at this beautiful resort.

Mount Revelstoke park was brought within reach of the outside motoring world by the opening up of the motor highway from the Okanagan valley to Revelstoke.

TIMBER PROTECTION

The fire patrol system was improved during the year in numerous details and no serious losses from fire occurred. The trail and forest telephone mileage was increased and a number of additional wardens' cabins were built. Forest fire warnings of a more permanent nature were established and automotive patrols added along the highways.

Fires in Canadian National Parks

Timber burned.. . . .	3,313 acres
Grass burned.. . . .	938 "
Cost of extinguishing.. . . .	\$4,705
Number of fires.. . . .	41

The wardens' patrols totalled 225,102 miles. Sixty-five miles of new trails were laid in Jasper and Revelstoke parks and 36 miles of telephone line erected in Jasper and Waterton Lakes parks. The cost of wardens' cabins totalled \$5,074; the cost of trail construction \$15,050 and the cost of telephone installation \$4,001.

Cars for use of the wardens in patrolling Kootenay park were purchased and a tractor and gang-plough were installed at Buffalo park for rapid ploughing of the fireguard areas. Fireguards were ploughed around the new area at Elk Island park. In preparation for aeroplane patrols several landing places were located and construction was begun in Rocky Mountains park and Kootenay park. An experiment in spring broadcast burning was made on Georgina island, one of the Thousand Islands of the St. Lawrence, with satisfactory results.

A working arrangement was made with the forestry officers of British Columbia by which a two-mile zone along the boundaries common to the parks and the province was placed under co-operative fire control. Ten new high-pressure portable pumps and a large capacity trailer pump for Kootenay and an automobile fire-truck for Banff were added to the equipment.

A conference of all the chief provincial and federal officers engaged in fire protection was called in Ottawa by the Minister of the Interior and the main problems on forest fire protection were discussed. The Canadian National Railways operating department also held a conference on the same topic at which many of the provincial and federal fire protection officers were present.

PUBLICITY

As the general public becomes more familiar with the attractions of the National parks, the demand for literature, information and general data relative to these reserves becomes heavier. Over 72,700 pamphlets were distributed during the year. So heavy was the demand that it was found necessary to authorize the publication of second editions of "Through the Heart of the Rockies and Selkirks" and "Guide to Banff and District," and a third edition of the "Banff-Windermere Highway." In addition the available supply of "The Nakimu Caves" and "Classified Guide to Fish and their Habitat in Rocky Mountains Park" has been completely exhausted, as well as the English editions of the Historic Sites pamphlets "Fort Chambly" and "Fort Ste. Marie II."

Through the itineraries carried out by the director of publicity, the official lecturer, and the motion picture operator, a total of 74,375 persons was reached. Lectures were delivered to 277 audiences and 753 films were shown. These educational lectures were given in Ontario, Quebec, Alberta, British Columbia and fourteen Middle West, Western, and Pacific States. The lectures in the United States were for the purpose of promoting tourist travel to Canada's National parks during the year. The opening of the Banff-Windermere highway entailed the promotion of an extensive publicity campaign, of which the lectures were an important part, and which was supplemented by the distribution of pamphlets and special articles. The results of this campaign were manifest in the success which attended the opening of the highway and the traffic that followed throughout the season.

A special publicity campaign was also carried on in connection with the sale of buffalo meat. As this is a new article of food it was necessary to interest the public in its merits before placing the meat on the market. Returns received show that the information supplied reached a wide field both in Canada and the United States.

Requests for material from several European publications were also dealt with, chief among these being illustrated articles on National parks, prepared for journals in Paris and Milan.

This work entailed a considerable amount of correspondence, 3,699 letters having been received in the division and 6,139 despatched in reply or direct association therewith.

ANIMAL LIFE AND FARMING OPERATIONS

All wild life in the various parks continues to thrive and multiply, responding favourably to the sanctuary afforded.

Buffalo.—A census of the buffalo herds taken on the 31st March, 1924, resulted as follows: Buffalo park, 6,655; Elk Island park, 316; Rocky Mountains park, 21.

The size of the government buffalo herd has outgrown the grazing capacity of the park at Wainwright, in consequence of which some 2,000 of the surplus buffalo, mostly bulls, were slaughtered for commercial purposes during the fall and winter of 1923.

Numerous requests from Zoological Gardens throughout the world for the donation or loan of animals from the parks are still being received. In continuation of the spirit of co-operation previously shown in the conservation of wild life, and in view of the benefits derived by Canada from the advertising these donations receive, these requests are granted whenever possible. All expense incurred in connection with these transactions is borne by the consignees.

Farming Operations.—These operations mean a considerable annual saving to the department. In Buffalo park the total area of farms is 725 acres, of which 525 acres were under crop and 200 acres summer-fallowed. The crops harvested were 23,143 bushels of oats, 450 tons of straw, 1,000 tons of hay, and 137 tons of green feed. In Waterton Lakes park the total area farmed is 300 acres. The greater part of this area was sown to timothy and brome, and rye grasses. Thirty-five acres were sown to oats. It is of considerable advantage to this park to be able to provide its own forage owing to its distance from the railway, which makes the purchase of fodder practically prohibitive, on account of transportation charges.

Elk.—The 300 elk obtained from Yellowstone park some four years ago and placed in Jasper and Rocky Mountains parks have progressed favourably

and now number approximately 1,450. In addition to these there are approximately 350 within the fenced enclosure of Buffalo park and 220 in Elk Island park.

Antelope.—The preservation of animals outside the parks in danger of extermination, particularly the few remaining bands of antelope, has received careful study. The antelope in Nemiskam park are responding favourably to



LAKE LOUISE AND MOUNT LEFROY, ROCKY MOUNTAINS NATIONAL PARK, BANFF.

the protection afforded and now number 180, an increase of 40 over last year. An effort is being made to procure other areas as sanctuary for the few small scattered bands of these animals still existing in the provinces of Saskatchewan and Alberta.

Census.—An approximate census of all wild life within the confines of the parks and all fenced enclosures is now being made.

Cross-Breeding.—During the year the specific results of new experiments in the cross-breeding of domestic cattle and yak, carried on at Buffalo park in co-operation with the Department of Agriculture, have resulted in the birth of three heifer calves and one male. Some of the experiments which will be based upon these new arrivals will naturally not be completed for several years.

TOWN PLANNING

Building plans for a large number of new buildings have been prepared during the year and many new sites planned. In connection with this work visits were made in the summer to Jasper, Banff, Radium Hot Springs and Waterton Lakes. Plans of private buildings in the various parks have been submitted to the architect of the town planning division as in previous years and in many cases necessary changes have been advised and frequently new plans made in order to bring parks buildings to a standard worthy of their exceptional environment. Plans were made for a new subdivision at Radium Hot Springs and for the layout of the station grounds at Jasper; for automobile camping grounds and a new subdivision at Waterton Lakes park; a subdivision for summer cottages at lake Edith, Jasper park, the proposed layout of the grounds at Fort Howe, St. John, N.B.; Banff avenue boulevard and automobile parking place at Banff; preliminary drawings of the proposed police quarters and entrance gateway at Waterton Lakes; Fort Chambly layout for cemetery grounds and central memorial.

The publicity and educational work included numerous articles for the *Town Planning Journal* and other magazines and newspapers; the composition of a Choric Ode for the opening of the Banff-Windermere highway and correspondence with town planning promoters in many parts of the Dominion. Plans of Canadian town planning schemes were sent to the Empire exhibition at Wembley.

Protection of Migratory Birds

ADMINISTRATION OF THE MIGRATORY BIRDS TREATY

In the summer of 1923 amendments were made to the regulations under the Migratory Birds Convention Act which brought into effect certain changes in open seasons and altered slightly the restrictions placed upon certain methods for capturing these birds. A special amendment to the regulations was prepared respecting damage to crops in the Prairie Provinces, allowing ducks causing damage to be shot. Relief to farmers suffering damage was afforded by this new regulation. Special amendments to the regulations were also prepared respecting the killing of great black-backed gulls, loons and mergansers under certain conditions in portions of the province of Quebec.

The permanent organization for the enforcement of the Act throughout Canada has been kept at approximately the same strength and, in addition to the enforcement of the Act, the staff has engaged through lectures, publicity, and in other ways in extending information concerning the value of birds and the need for their protection. In carrying on this work the staff has enjoyed the fullest co-operation with the provincial game departments. Except in provinces where the provincial law does not conform to the treaty the actual enforcement of bird protection measures has been left largely in the hands of the provincial authorities.

The Royal Canadian Mounted Police are now ex-officio officers operating under the Migratory Birds Convention Act, bringing the number of honorary game officers to a total of 1,602.

During the summer Mr. H. F. Lewis and four assistants spent three months on the Canadian Labrador investigating bird conditions there and protecting breeding birds in this important waterfowl area. Special protection was given to the breeding birds at Bare island, off Sidney, in Haro strait, British Columbia, and Pilgrim islands, St. Lawrence river, about 100 miles below Quebec, during the breeding season, as well as to ducks at Buffalo lake, Saskatchewan. Special steps were taken to protect the whistling swan wherever flocks were found. Forty-eight offenders were prosecuted and fines were imposed amounting to \$555. Four cases were dismissed, and one case withdrawn. It is the policy of the branch to refrain from taking action in the police court for trivial offences when a well directed talk will serve in bringing the offender to see the error of his ways, but it is regretted that many serious infractions are committed which leave the department no alternative but prosecution.

Educational.—Further editions of previous leaflets on bird protection were published. The total distribution of pamphlets of all kinds amounted to 112,304. Publicity concerning the shooting seasons and other bird protection matters was obtained through the distribution of 44,432 posters, 17,911 Acts and 7,890 abstracts of the regulations thereunder. Posters concerning the Migratory Birds Convention Act for Indians were translated into Cree and published in the *Cree Review*.

A new pamphlet, "Hints for Hunters," was prepared and printed, "Attracting Birds with Food and Water," a pamphlet on this subject, was published in both French and English. "No Spring Shooting" was reprinted, July, 1923, in *West Virginia Wild Life*.

Two hundred and fifty-eight lectures on bird protection were given by members of the permanent staff and lantern slides and other material were furnished to honorary game officers and others for lecture purposes. In all 2,260 slides were loaned for lecture purposes. These slides are lent free of charge to responsible persons. Motion picture films of bird life were also distributed and proved an excellent publicity medium. The slide library of this division now comprises 679 views representing 196 different species of birds.

The Supervisor of Wild Life Protection attended different Boy Scout Camps during the summer and gave instructions and lectures on birds. He also acted as leader on several naturalists' excursions. Many articles in connection with bird protection were written by the supervisor, game officers and honorary game officers. School essay competitions were conducted throughout the western and Maritime Provinces. Copies of the late Dr. Hewitt's book "The Conservation of the Wild Life of Canada" were distributed to Boy Scouts and Girl Guides who passed tests for their naturalist's badge. Competitions in bird house building were organized by officers of the branch and other interested parties.

Arrangements were made so that flight officers of the Air Board may report upon bird life to this branch.

Every effort has been made to keep the public well informed regarding the game laws and game conditions as they change from time to time. Copies of game acts, posters and synopses of regulations under this Act were sent to a large number of sportsmen and others who are interested. The Government Radio Broadcasting Station co-operated with the branch in wild life protection publicity.

Bird Sanctuaries.—Six new bird sanctuaries were created by Order in Council during the past year, namely:—

1. Seal, Flat, Round, Mud and Noddy islands, situated in the province of Nova Scotia, lying approximately eighteen miles west of Cape Sable island.

2. Rideau island, situated within the city of Calgary, Alberta. The Boy Scouts of that city are interested in the welfare of the wild life on this reserve.

3. Vaseaux lake, B.C., and a certain specified area surrounding it.
4. The Gorge and Victoria Arm, Vancouver island, created a sanctuary by the Government of British Columbia and the Dominion Government.
5. Indian Head and Sutherland federal forest nursery stations, in the province of Saskatchewan.

Public Shooting Grounds.—An inspection was made of all the lands which were suggested by the province of Alberta as being suitable for shooting ground purposes.

Permits and Licenses.—One hundred and seventy-three permits were issued allowing the holders to take birds for scientific purposes and seventy permits allowing the capture of birds for banding purposes. Through bird banding it is hoped that much new and important information will be secured concerning Canada's valuable insectivorous and game birds. The branch is working in full co-operation with the United States Biological Survey in tracing and recording migration of birds in this way. Nearly all the work is done by voluntary co-operators. The official records for Canada of bird banding returns, which concern Canada, are kept in this branch. During the past fiscal year 5,804 records of banded birds were received, and 1,366 repeats and returns on banded birds came to hand. Sixty-nine taxidermists' licenses were issued during the past year.

Advisory Board on Wild Life Protection.—During the year this board held eight meetings and many important items were discussed.

Conference.—A conference of provincial and federal game officials was held in Ottawa on February 6, 7 and 8, 1924.

The conference was opened by an address of welcome, which was delivered by the Hon. Charles Stewart, Minister of the Interior. Mr. Stewart referred to the great need of protective measures to conserve the country's valuable wild life, including fur-bearing animals, game animals and birds, and to the fact that the fur-bearing animals formed the chief means of support of Canadian Indians, lacking which the Indians would become a much heavier charge upon the Dominion. The trapping of fur as affording a very valuable revenue to the country was also noted.

The resolutions dealt with many important matters, such as: jurisdiction of provincial game officers; the amendment of the Customs and Export Act with respect to the export of game; a reconnaissance concerning species of birds other than those protected by the Migratory Birds Convention Act; the licensing and registration of trappers and hunters; the leasing of Crown lands; the adoption of measures for the suppression of the dumping of oil into navigable waters; and the shortening of the open season for woodcock.

Investigations on food habits of birds have been carried out by J. A. Munro, chief officer for Western Canada under the Migratory Birds Act.

Historic and Prehistoric Sites

Satisfactory progress was made during the past year in regard to the acquisition, preservation, restoration and marking of historic sites of national importance throughout Canada. To date over eight hundred sites, many of which are not considered of sufficient importance to receive attention, have been reviewed, from which one hundred and twenty-six have been selected for commemoration. The control of sixty-one of these has been acquired by transfer from other Departments, deed of gift or lease of occupation.

In connection with this work the policy adopted is to proceed for the present only with the actual work required to prevent deterioration of existing ruins,

or the erection of memorials of an inexpensive nature. On sites where there are no historic remains to be restored or preserved, but historic occurrences need to be recorded, a memorial in the form of a cairn or boulder is erected to carry a standard bronze tablet. This tablet is of a highly artistic character. Into its frame phases of Canadian history have been symbolically and artistically worked, while the centre panel bears the inscription setting out the historic data connected with the site. Local societies and organizations are according their co-operation, and sentiment is growing strong in connection with this national work.

Sites Marked

The following twenty-one historic sites have been marked by the erection of memorials and in most instances the unveiling ceremonies have been carried out:—

Fort Cumberland, N.B., formerly old French Fort Beauséjour, erected in the middle of the seventeenth century, near Beaubassin, one of the most important Acadian settlements.

Fort Monckton, one and a half miles from Port Elgin, N.B., formerly old Fort Gaspereaux, erected in 1750 by the French at Bay Verte, to command the defence of the isthmus of Chignecto, and captured in 1755 by the British.

St. John, N.B., erected on a site provided by the city, to commemorate the landing of the United Empire Loyalists.

Fort Lawrence, three miles from Amherst, N.S., erected in 1750 at Misagouche by Major Charles Lawrence.

Shelburne, N.S., a large boulder and tablet erected on a site; provided by the town, commemorating it as the Loyalist town of Nova Scotia.

St. Maurice Forges, near Three Rivers, P.Q., on the St. Maurice river about seven miles from the city of Three Rivers, to commemorate the forges established there in 1730.

Three Rivers, P.Q., commemorating the military operations which took place there during the American invasion of 1776.

Laprairie, P.Q., erected on the site of the old fort built by de Catalogne in the fall of 1687, which afforded refuge for the settlers during a quarter of a century of wars 1687-1713.

Second Battle of Laprairie, "La Bataille," four miles from Laprairie, P.Q., commemorating the defeat of the forces under Major Peter Schuyler, August 11, 1691.

Kingston, Ont., tablet was placed on the walls of the building occupied by the Whig Publishing Company, which stands on the site of the old St. George's Anglican Church, where on July 8, 1792, Governor Simcoe held his first meeting of the Executive Council of the province of Upper Canada.

Glengarry House, four miles east of Cornwall, Ont., commemorating the services of Colonel the Honourable John Macdonell, who was a leading pioneer in the settlement and organization of the present province of Ontario.

Battle of the Windmill, near Prescott, Ont., commemorating the victory over an invading force of filibusters on November 13, 1838, during the Rebellion.

Battle of Chrysler's Farm, near Morrisburg, commemorating the victory over the invading Americans at the battle which took place there on November 11, 1813.

Fort Ste. Marie II, Christian Island, near Penetanguishene, Ont., commemorating the Jesuit fort, Ste. Marie II, built in 1649-50 for the protection of the missionaries, and the remnants of the Huron nation, as a last stand against the Iroquois.

Mission of St. Ignace, near Midland, Ont., the most probable site of the martyrdom of the Jesuit missionaries, Fathers Breboeuf and Lalement.

Port Dover, Ont., "Cliff Site," an artificial stone cross, to commemorate the taking possession of the lands of the Lake Erie region in the name of King Louis XIV of France, by the Sulpician priests, Dollier and de Galinée, on March 23, 1670.

Port Dover, Ont., "Wintering Site," commemorating the site of the wintering place of Dollier and de Galinée.



MEMORIAL ERECTED AT LOWER GRANVILLE, N.S., TO MARK THE SITE OF
CHAMPLAIN'S HABITATION.

Battlefield of Chippawa, near Chippawa, Ont., tablet was erected on a monument provided by the Queen Victoria Niagara Falls Park Commission adjacent to their boulevard to commemorate the Battle of Chippawa or Street's Creek, July 5, 1814.

Battlefield of Frenchman's Creek, near Bridgeburg, Ont., tablet erected on a monument provided by the Queen Victoria Niagara Falls Park Commission to commemorate the action at Frenchman's Creek, November 28, 1812.

Battle of Cook's Mills, near Welland, Ont., commemorating the Battle of Cook's Mills, October 19, 1814.

Battlefield of Fort George, Niagara-on-the-Lake, Ont., commemorating the Battle of Fort George, May 27, 1813.

Battlefield of Beechwoods or Beaver Dams, near Thorold, Ont., commemorating the final phase of the Battle of Beechwoods, or Beaver Dams, June 24, 1813.

Sault Ste. Marie, Ont., commemorating the first Sault Ste. Marie canal, surveyed by the Northwest Company in 1797.

Arrangements for Acquisition of Other Sites

Arrangements have also been made for the acquisition of other historic properties, as well as various monuments and other structures of national interest. Action in this respect was taken at the following sites and various improvements made:—

Maritime Provinces.—Louisburg, Cape Breton; Battle of Grand Pré, near Grand Pré, N.S.; Champlain's "Habitation," Port Royal, N.S.; Fort Char-nisay, St. John, N.B.; Martello Tower and Blockhouse, St. John, N.B.; Charlottetown, P.E.I.

Quebec.—Fort Chambly, Chambly; Fort Lennox, Ile-aux-Noix; Fort Crevier, Notre Dame de Pierreville; Battlefield of Lacolle; Madeleine de Verchères, Verchères; Fort St. Jean, St. Johns; Fort Ste. Thérèse, near St. Johns; Three Rivers Fort and Platon, Three Rivers; Fort Coteau du Lac, Coteau du Lac; Battlefield of Odelltown, Odelltown; Logan Memorial Park, Percé.

Ontario.—Glengarry Cairn, Monument Island, near South Lancaster; Fort Wellington, Prescott; Pointe au Baril, Maitland; Fort de Levis and Batteries, at Adams Point, near Cardinal; Fort Cataraqui or Frontenac, Kingston; Martello Shoal Tower, Kingston; Port Arthur; Port Dover; Point de Meuron, near Fort William; Welland Ship Canal, St. Catharines.

Western Canada.—Battlefield of Seven Oaks, Winnipeg, Man.; Fort Livingstone, Sask.; Nootka Sound, Friendly Cove, B.C.; Prince George, B.C.; Yale, B.C.; Prospect Point, Vancouver, B.C.

Work for Future

The following historic sites, which have been recommended for action by the Historic Sites and Monuments Board will be suitably marked in due course.

Maritime Provinces.—Fort Edward, Windsor, N.S.; Fort Meductic, N.B.; Fort La Tour, St. John, N.B.; Campbellton, N.B.

Quebec.—Hochelaga, Montreal; Gaspé (Landing Place of Jacques Cartier); Fort Rémy; Fort Sorel, Sorel; Fort Glentilly; Fort Cuillierier; Fort Rolland; Fort Verdun; Fort Senneville; Battlefield of Châteauguay, Châteauguay; Fort Longueuil; Fort Charlesbourg Royal, Cap Rouge; Arbre-à-la-Croix; Cap Madeleine; Tadoussac; Lachine Massacre, Lachine; Lachenaie near Terrebonne; Rivière des Prairies, Coulée Grou; Battlefield of Cèdres above Mont-real.

Ontario.—Ernestown Shipyard, near Bath; Southwold Earthworks, near St. Thomas; Mission of Ste. Marie I, near Midland; Vrooman's Battery, near Queenstown; Site of Tête du Pont Battery, near Chippawa; Weishuhn's Redoubt, near Willoughby; Navy Island Shipyard; Fort William; Fort Nottawasaga, near Stayner; Fort Stanley; Point Pelee; Fort Norfolk, Turkey Point; Sandwich; Glengarry Landing, near Edenvale.

Western Canada.—Frog Lake Massacre, Alberta; Fort Macleod, Alberta; Battlefield of Fish Creek, Sask.; Duck Lake Battlefield, Sask.; Batoche, Sask.; Cut Knife Battlefield, Sask.; Battleford, Sask.; Fort Langley, B.C.

NATIONAL PARKS

A brief summary of the tourist and other activities and of the improvement work carried on in the national parks is given below.

Rocky Mountains Park

Tourist Traffic.—A considerable increase in the tourist figures is a marked feature of the year's record. Against a total of 79,742 for 1922-23, the figures for 1923-24 amounted to 94,930. The following is a summarized statement:—

Banff Springs Hotel.. . . .	17,876
Chateau Lake Louise.. . . .	22,367
King Edward Hotel.. . . .	3,998
Mount Royal Hotel.. . . .	3,618
Hotel Bretton Hall.. . . .	3,545
Homestead Hotel.. . . .	2,153
Cascade Hotel.. . . .	1,483
Brett Hospital.. . . .	601
Hot Springs Hotel.. . . .	259
Larch Valley Camp (Alpine Club).. . . .	132
Cottagers, week-end excursionists.. . . .	4,000
1,693 camping permits, 4½ persons each.. . . .	7,618
8,485 autos, 4 persons each, less campers, as stated.. . . .	27,280
	94,930

1922-23 visitors—79,742.

The hotel registration numbered 54,617, as against 51,226 for the previous season, and of this total 12,309 were Canadians, 36,639 Americans, 3,837 British and other nationalities and 1,832 conducted parties.

Government Baths.—There was a successful season at the Cave and Basin bathhouse. One thousand two hundred and forty-eight bathers were admitted to the baths on July 2, the largest number on record for any single day. The total number of bathers amounted to 46,778. At the Upper Hot Springs the flow, which showed signs of diminishing last year, finally ceased on March 12 and remained dry until May 11, when it started again and soon reached normal strength. The total number of bathers at these baths was 17,949, a decrease as compared with last year, which is explained by the cessation of the flow during two months of the season.

Motor Traffic.—A large increase in motor traffic is recorded, doubtless owing to the opening of the Banff-Windermere highway, and the excellent conditions of most of the park roads. The total number of motor licenses issued in Rocky Mountains and Kootenay parks was 6,263, representing an increase of 2,050 visiting cars over the preceding season. One thousand seven hundred and thirty-five (1,735) American and 6,587 Canadian cars conveyed 33,460 visitors into the park, an increase of 14,501 motor visitors over the previous year. A single day record was established at the Eastern Entrance on July 1, when 277 cars entered the park, while a week-end record was registered on September 1, 2 and 3 at the same entrance, 936 cars passing east and west through Kananaskis gateway. Thirty-seven different states were represented among the visiting American motor cars.

Power-House.—The most important engineering work of the year was the construction of a new power-house plant for Banff townsite, necessitated by the closing of the coal mines at Bankhead. Previously Bankhead Mines Company had operated the power plant from which the town of Banff secured power and light, but, with the notification by the company that the electric light supply would be discontinued, it became necessary to construct a Government plant to supply the needs of the town. The work was commenced in February, 1923, and the plant was put into operation during February, 1924. The works included steel pen-stock, tunnel through rock, steel pen-stock crossing the Cascade river, woodstave pipe and steel distributing pipes. Two units and generators with accessories were installed, a concrete power-house was built and provision made for a third unit. The steel surge tank erected near

the power-house is 14 feet in diameter and 67 feet high. A transmission line was constructed from the power-house to Bankhead. The equipment of the Canadian Pacific Railway Company's distributing system in Banff was taken over and new street lights installed.

Government Townsite.—A total length of 315 feet of new sewer was laid at Banff. A fence was placed around the new Bow bridge approaches and steps installed to allow visitors to reach the lower levels, and considerable work was done on the road approaches to the bridge.



ZIGZAG ON MOUNTAIN MOTOR ROAD—YOHO NATIONAL PARK.

An extensive sanitary campaign was conducted during the year. Inspections were made of all dairy premises and in a number of cases cow barns were condemned and closed. The annual tuberculosis tests among cattle were taken and one animal, only, was slaughtered. At Canmore the electric lighting system was extended from the townsite to a point near the station.

Camping.—The new camping grounds at mount Rundle were laid out, streets cleared and graded and buildings erected. These include a caretaker's cottage, service buildings and nineteen shelters. The town electrical system was extended to the camp grounds and to the golf club, and water and sewerage systems were installed. The work was completed in good time for the tourist season. The popularity of the camp is shown by the fact that while permits in 1917-18 were only 73 the number issued during the past season amounted to 1,693.

Golf Course.—The golf course was patronized beyond all precedent. Round tickets issued numbered 5,286 and 332 tickets for more extended use were taken out. Seventeen holes were available for play. Systematic top dressing of the greens was carried out to keep them in good shape.

Mosquito Control.—Excellent work was again accomplished by Mr. Hearle, of the Entomological Branch of the Department of Agriculture, in the elimination of mosquitoes. Two thousand four hundred and ten (2,410) gallons of oil were spread and a considerable amount of permanent work was done, although the wet season added to the number of breeding places and considerably augmented difficulties.

Roads.—Three crews were maintained during the season on the roads throughout the park in addition to the sectionmen. Two of the gangs were scarifying and surfacing between Lake Louise and Banff, and one gang was engaged between Banff and the eastern boundary of the park. A total of nine and one-half miles of surfacing was done between Banff and Lake Louise and this road is now one of the best in the park. Six miles between Banff and the eastern boundary were also surfaced, which put the road into excellent shape.

Zoo.—One golden eagle and four bear cubs were added to the zoo, which maintained its reputation as one of the important attractions at Banff. The polar bear is particularly popular and appears to enjoy the attention he receives. Thousands of tourists visited the animal paddock, mainly to see the buffalo, which are a source of perpetual interest. Animals in the paddocks total: 21 buffalo, 20 elk, 1 cow moose, 7 yak, 1 Persian ewe, 10 angora goats, 9 Rocky Mountain sheep, 15 Rocky Mountain goats, 14 four-horned sheep.

Game.—The elk appear to be increasing with great rapidity and have now spread from the vicinity of Banff to outlying regions. Moose are becoming more plentiful, and large numbers are seen at the Spray lakes, up Brewster creek and at Bow lakes. Rocky Mountain sheep may be seen in large flocks along the eastern slopes of Sawback range. Rocky Mountain goats are also increasing, and in some cases are now occupying former sheep ranges. Deer may be seen wandering through the townsites at any time of the year, and visitors are greatly delighted at being able to approach and feed these beautiful creatures. Birds seem to be greatly on the increase. There were destroyed 35 coyotes, 13 lynx, 12 wolverines and one mountain lion as predatory animals.

Fires.—Seven small general fires were reported and of these four were caused by campers leaving their fires burning. The total cost of these fires was only \$124 and of this amount \$113 was expended in combating one fire at the foot of Stony Squaw mountain. There were also eight railway fires, but the cost of extinguishing these was nominal and no damage resulted.

Clearing of slash, brush and scrub along the roadside between the eastern boundary and lake Louise as a fire protective measure was carried out, and the debris was burned during the early spring.

The only new trail work was the construction of 12 miles from the Bow valley to Red Deer summit, a trail that will be very useful from the fire and game protective point of view as well as for the tourists.

Fishing.—A very successful fishing season in the lakes and streams was reported. Restocking was carried on as usual by the Government hatchery, which liberated the following fry and fingerlings:—

Salmon trout in lake Minnewanka.. . . .	84,119
Atlantic salmon.. . . .	102,333
Cutthroat trout in Spray lakes.. . . .	168,311
In other streams and lakes in park.. . . .	240,458

Sports.—The thirty-third annual celebration of Indian Day held in the park on July 25 and 26 was the most successful yet held. In addition to the usual races and contests the Indians themselves arranged pageants depicting life in the early forties, which they carried out with a dramatic seriousness and attention to detail that greatly delighted spectators.

The other chief sporting events, the annual regatta on Bow river, May 24, and the Winter Carnival, were both carried out with enthusiasm. The carnival is each year attracting a larger number of visitors, many of whom come from long distances. A thirty-mile dog race on a five-mile course was one of the most interesting features this season.

Kootenay Park

Development in this park has consisted chiefly in the opening up of camps and townsites along the Banff-Windermere highway. During the summer months of 1922 an area was set aside for a townsite in the vicinity of Marble canyon, and in the spring of 1923 the lots were thrown open to entry. A townsite was also laid out at Radium Hot Springs and a number of applications for lots was received. A large tea room and rest house were erected there by the Canadian Pacific Railway Company, which provided excellent accommodation for the tourists during the season, and a small hotel under private management was also built.

A new gateway entrance to the park, containing rest room for visitors and quarters for the local warden, constructed from plans by the town planning division, was erected just west of the Hot Springs, and presents a very pleasing appearance.

Radium Hot Springs Bathhouse, Sinclair Canyon.—A very successful season was reported at this bathhouse. The total number of bathers was 5,955.

Permits.—Three hundred and ninety-six camping permits and 1,716 transient auto licenses were issued.

Motor Traffic.—Of the total number of motor cars entering through the western gate 1,410 were Canadian and 683 were from the United States, carrying a total of 9,415 persons. Two thousand four hundred and forty-one cars left the park, passing out through the Western gate.

Traffic on the Banff-Windermere highway continued intermittently until November 27, when a heavy snowfall rendered the road impassable. Up to this date it was in good condition.

Game.—Although game protection measures have been in operation only a comparatively short time in this park, wild life is noticeably increasing. Larger numbers of sheep are observed in the vicinity of Radium Hot Springs as well as moose, elk, and deer throughout the park, indicating once more the rapid and beneficial effects of sanctuary conditions.

In connection with forest fire and game protection, work was begun on the construction of a landing place for aeroplanes at Macleod meadows. The ground was grubbed and levelled and other work done in order that the site may be in condition for use next year.

Yoho Park

The usual clean-up in the townsite of Field was undertaken as soon as the frost was out of the ground. This involved resurfacing of roads, planting of new trees in the boulevard, and laying new sidewalks to the extent of 1,500 feet at a standard width of six feet. The Emerald Lake road was maintained in excellent condition throughout the season. Repairs were undertaken on Ottertail road and some minor repairs on the Hector grade.

The trails between Field and Emerald Lake chalet and the Twin falls were cleaned out and widened and new bridges were constructed over the Little Yoho river and at Twin falls. A new truss bridge over Kickinghorse river on the Yoho road was the most important piece of construction. It consists of two spans, one 91½ feet and the other 62½ feet long on rock-filled piers. This bridge will eventually be on the main motor highway from Banff to Field.

Game is increasing rapidly, especially moose, deer, goat, and bear. On the Ottertail flats moose can be seen at almost any time of the day and are becoming very tame. Beaver also are thriving.

To maintain the fishing 13,800 rainbow trout fry were placed in Emerald lake.

There were no forest fires of any consequence. One railway fire and one general fire were reported but the total amount spent for fire-fighting was only eight dollars. It is believed this gratifying condition is very largely due to the educational methods carried out in regard to fire prevention.

Glacier Park

The road from the station to the Glacier trail was put in good condition as soon as weather permitted and the Nakimu Caves and Rogers Pass roads opened up and repaired.

The trail work was chiefly devoted to the Great Glacier and Asulkan trails which are the two most frequented in the park. One bridge was replaced at the foot of Great Glacier. A number of washouts on both these trails gave a considerable amount of trouble and caused a larger expense than usual. Other trails received the necessary attention. Rustic boundary signs were erected at both ends of the park along the railway line.

At the Nakimu caves further exploration was undertaken and good progress was made in opening up these wonderful caverns. During the season 700 persons from many parts of the world visited the caves.

Four fires, one railway fire and the other three caused by lightning, were reported but the damage was inconsiderable.

Revelstoke Park

The early spring permitted the beginning of repair work towards the end of April. The improvement of roadbeds, clearing of ditches and culverts proceeded to the extent of seven miles. Approximately one mile of new road was opened up and it is hoped to get this road through to the top during the coming season.

A small grant to the ski club to improve the landing hill permitted this work to be done and some 600 yards of material were used for this purpose.

Trails through the park received the usual spring repairs following the slides and washouts resulting from the heavy snowfall and large volumes of snow water coming down the mountain slopes. A new trail was cut out and graded from Clach-na-Coodin creek to the valley of Silver creek, a distance of approximately 10 miles. Later this trail was extended to the eastern boundary and will now permit the passage of fire-fighting machinery all along the slope of the mountain.

There were three forest fires started by lightning all at an elevation of more than 3,000 feet. One of the fires was at an elevation of 5,300 feet and 800 yards of hose had to be used in extinguishing it. The fourth fire required nearly a mile of hose. In all cases however the portable engine and other equipment justified itself and saved the park from serious damage.

The number of visitors to the park totalled 8,958, as against 3,500 for the previous year.



VEGETATION AT THE SNOW LINE—HEATHER AT THE TOP OF BALOO PASS, MOUNT CATAMOUNT IN THE BACKGROUND—GLACIER NATIONAL PARK.

Jasper Park

Visitors.—From hotel registrations and a careful estimate of unregistered visitors it is concluded that the tourists figures for Jasper park reached the satisfactory total of 10,072.

New Buildings.—There was a considerable growth in the town during the year. The decision to make Jasper a permanent divisional point led the Canadian National Railways to build fifteen new bungalows of a very attractive character. In addition the local residents have been building attractive bungalows and the vacant lots near the centre of the town are being gradually filled up. Several new stores have been added on the front business street. The estimated cost of the new buildings is \$132,120, as compared with \$69,500 of the previous year.

Roads.—The principal new construction undertaken was the conversion of a portion of the abandoned railway grade from Jasper to Snaring into a motor highway. A new highway bridge was built over the Snaring river. The usual maintenance work was carried on over the existing roads of the park.

Cabins.—Two new warden's cabins were built on the Smoky river in the northwest part of the park. This area abounds in the larger game animals such as moose, caribou, mountain sheep, goat and grizzly bear and was in need of the protection which the warden service is now in a position to give.

Wild Life.—All the game animals in the park are rapidly increasing. Mule deer are found in almost all the valleys of the park and are particularly numerous in the Athabaska valley. Around Jasper they have grown very tame and can be seen in the neighbourhood of the townsite almost daily. Caribou appear to be increasing throughout the northern portion of the park especially in the Smoky River and Twin Tree Lake districts. Several have also been seen at Dominion prairie, 14 miles west of Jasper. Moose are becoming plentiful in the northern part of the park and on the west fork of the Macleod river and Grizzly creek. They are also beginning to come into the Maligne area from the south and have been seen at Maligne canyon and at the golf links. Fine specimens were also encountered lately on the Snake Indian river. The elk or wapiti are becoming numerous and quite tame. A herd of fifteen to thirty can be seen almost daily within a mile of Jasper on the sidehills along Cabin creek. There are also large herds on the Pyramid plains near Cottonwood creek and at Buffalo prairie. In the southern part of the park around Brazeau lake and Isaac creek there is a herd of about 100 which comes down to Maligne lake, crosses Evelyn pass and winters at Buffalo prairie. All calves seen are in excellent condition. The sidehills to the east of the Athabaska from Pochontas to Athabaska falls show flocks of from ten to twenty mountain sheep almost daily and on Buffalo prairie in the spring they were exceptionally numerous. They are also coming into the Jacques Creek and Swiftwater Creek districts and are increasing very rapidly south of Brazeau lake. Goat are also becoming numerous and are found on the shale banks on the Snake Indian river and on mount Kerkeslin, near Athabaska falls, in the Snaring valley and along the Colin range. Bear are also increasing, and around Jasper black and cinnamon bear can be seen almost daily. Grizzlies are found in the Snake Indian, Rocky, and Smoky River valleys. Marten, fisher and mink, and particularly beaver are also noticeably more numerous.

Trails.—The most important new trail extension was that opening up the northwest portion of the park. Heretofore very little has been known of this rather inaccessible area but the construction of a standard trail from Deer creek along the valley to the Snake Indian river will permit the penetration and patrol of this section more easily. Twenty-three miles of excellent standard trail were constructed as far as Cache camp. There are now 640 miles of trails in the park, 280 miles of which are of standard construction, 282 ordinary trails and seventy-eight old Indian trails.

After several reconnaissance parties had been out to find the best route for a trail to Tonquin valley it was eventually decided to locate it up the

Meadow Creek valley, using the west side of the creek. The first five miles of this trail proved to be exceedingly difficult with very steep sidehill work, some rock work and large timber in places. The trail was eventually completed satisfactorily, and is in length a distance of 13 miles from Geikie to Amethyst lakes. This has opened up, within one day's trip from Jasper, a picturesque and wonderful piece of country that hitherto had been very difficult of access for the average visitor.

The first eight miles of a trail from Maligne lake to Poboktan valley was completed in 1922 and this summer work was continued following the upper Maligne River valley to the summit and then taking the Maligne Creek valley to Poboktan creek. The distance constructed this year was 16 miles.

A piece of trail three and a half miles long from Athabaska falls to Cabin No. 10, Whirlpool river, was also constructed by the trail gang after finishing to Poboktan valley. This trail will be used mainly for fire and game protection.

Connaught drive in Jasper townsite was extended and a considerable amount of work done in extending the boulevard system.



AT THE MOUTH OF ROCKY RIVER CANYON—JASPER NATIONAL PARK.

Golf Course.—The construction of a nine-hole golf course was commenced about a quarter of a mile southeast of Jasper Lodge and a small temporary course provided. A professional was on duty to serve the needs of players.

Fires.—There were eight railway fires covering $14\frac{3}{4}$ acres which were extinguished at a cost of \$269. There were also two general fires, probably caused by smokers' carelessness. These covered 1,105 acres and cost \$250 to extinguish.

Waterton Lakes Park

This park is advancing steadily in popular favour particularly as a resort for family parties, a large number of whom, as well as golfers and anglers, spend the summer at the lake. Its possibilities for trail riders are also great, as it offers excellent trails and a variety of trips that comprise a maximum of scenery in a minimum of distance.

Visitors.—More attention was given to the registration of tourists and although the figures are far from complete, owing to late arrivals after the close of the office, 12,521 persons were registered, of whom 11,813 were Canadians, 683 from the United States and 25 from Britain and other countries. To this may safely be added 25 per cent for visitors who were not registered, making a total of approximately 16,695.

Roads and Bridges.—The spring floods did great damage to roads and bridges and necessitated numerous repairs. On account of this heavy maintenance few new works were undertaken. Approximately one mile of the Cardston road was gravelled. A new survey of the townsite was commenced and all new streets and avenues were opened, graded and gravelled. Approximately all the surveyed lots had been applied for, hence the necessity for the new survey.

Trails.—New trail construction consists of three miles on the Mount Lineham trail, three miles Indian trail and two miles on the Twin Lakes trail. Several old trails were also repaired and brought up to standard.

Water Supply.—The need for a water supply to the townsite has been manifest for a number of years. During the fall sufficient pipe was purchased for the purpose and 500 feet laid from Cameron creek covering the most difficult part of the construction.

Buffalo Park

Stock.—The annual increase in buffalo for the year has been 1,823 and the total decrease, including those slaughtered, 1,948. The animals now in the park are as follows: Buffalo, 6,655; moose, 29; elk, 258; mule deer (estimated), 1,194; antelope, 4; cattalo, 14; yak, 21; domestic cattle (cattalo experiment), 13; hybrid yak-domestic, 6; hybrid yak-buffalo, 1; total, 8,195.

The total capacity of the park for the maintenance of buffalo is estimated at 5,000. The records show that from and including the 700 buffalo imported in 1907 up to March 31, 1924, there have been 9,394 buffalo in the park. The decrease of these from various causes has been 2,739, leaving a total of 6,655.

Visitors.—The majority of visitors to this park come by motor. The records show that 5,650 persons visited the park during the season. Since there are no camping sites, boating or fishing, it is manifest that a lively interest in the animals is the main stimulus in attracting visitors to the park.

Farming Operations.—Farming operations were confined to growing oats, except some minor experiments with sunflower and white clover. Approximately 525 acres were under crop. Eighty-five acres of the total oat crop were cut for green feed and from the remainder, 23,143 bushels of oats were threshed. Approximately 15,000 bushels of this stock will be shipped to other parks and still leave feed for Buffalo park and seed for the coming year. Two acres of light land were selected for the sunflower experiment, from which 20 tons of feed were cut and fed to the buffalo, which seemed to relish this kind of feed. The experiment in white clover was judged to be successful; 1,000 tons of first-class hay were cut and stacked.

Fire Protection.—The ploughing of 155 miles of fireguard along the main fence on the south, east and north boundaries was done by the park outfit, while the ploughing of fireguard along the west boundary was done by hired teams. There was only one fire in the park, which was started by a lighted cigarette. Fortunately it was extinguished without doing any damage.

Fences.—The repair work this year was exceptionally heavy. Approximately 90 miles of high fence and six miles of meadow fence were gone over and placed in safe condition.

New Buildings.—The largest item in the building program was the completion of the slaughtering plant in winter quarters of which part was erected last year. The plant is equipped with steam heat and power, is lighted by electricity, has a complete drainage and sewerage system and an incinerator. A building to provide sleeping accommodation for the men employed in the slaughtering plant and an addition to the boarding house at this point were also constructed.

Animals.—The improved pasture conditions made a considerable difference in the appearance of the buffalo and the elk, and the mild weather was also in their favour. The quantity of feed, particularly hay, given the buffalo during the winter has been small in comparison with other years and the herd is in better condition. The demand for live buffalo for city parks is steadily increasing. Eleven have been sent to various Canadian parks, three to Auckland, New Zealand, and two to Louisville, Kentucky.



BUFFALO IN BUFFALO NATIONAL PARK, WAINWRIGHT, ALBERTA.

Marketing Buffalo.—In view of the large increase in the buffalo herd and the limited pasture, a large number of aged buffalo had to be slaughtered. These operations were carried out during the fall and early winter when the animals were in good flesh and the fur prime. The buffalo meat, for which there was a ready demand, was marketed through various packing houses in Canada. The total number slaughtered was 1,847 of which 94 per cent were males. This is about three times the number of the herd originally brought into the park.

Breeding Experiments.—The progress made this year in connection with buffalo-yak-domestic cross-breeding experiments carried on by the Department of Agriculture at this park is very encouraging. Calves from the buffalo-domestic, yak-domestic and yak-buffalo crosses were obtained.

Elk Island Park

The number of visitors to the park during the year totalled 7,812, which is an increase over the preceding year of more than 2,000. The most important work of the year was the fencing of Cooking Lake forest reserve, extending the area from 16 to 51 square miles. The fence is of woven wire eight feet high, and incloses thirty-four sections of the reserve. The work included the ploughing of a fireguard 10 feet wide the entire length of the fence but this was not completed owing to the lateness of the season. The animals were admitted to the park on December 5 and are thriving on the new pasture. A warden's cabin and stable were erected at the extreme south end of the park.

Improvements were made to the picnic grounds, which have become a great boon to the public. A road was cut to Sandy beach, a distance of about two and one-half miles. About 400 tons of hay were stacked. The old fireguards received the usual ploughing and discing.

The animals are in excellent condition. There are now 320 buffalo, 223 elk, 101 moose and 158 deer (estimated) in the park. Sixteen coyotes were destroyed.

Point Pelee Park, Ontario

There was a remarkable increase in visitors to the park during the year. While the number for 1922-23 was estimated at 7,000 a careful estimate for the past year places the number at 49,000. These figures show that this most southerly of the parks is becoming better appreciated not only for its great beauty and mild climate but also as a bird paradise. It extends from the mainland in Essex county eight miles south into lake Erie. Nature has made an admirable wild life resort within the park comprising an area of 3,500 acres in lakes, flats, and ponds. During the year 12,000 automobiles were admitted to the park, which is an increase of at least 50 per cent on the previous year, and 300 campers' permits were issued. There was a marked increase of visitors from the United States.

In view of this rapid development of traffic the roads have required special and continuous attention. The trees and shrubberies of the park were also tended carefully and no violation of parks' regulations have been manifest.

Several raccoons have found habitation within the park and the black squirrels that were introduced early in the year are multiplying. The English ring-necked pheasants are very interesting to visitors as they frequent the roadsides and walks through the park. Quail have greatly increased as a result of the protection afforded and because they are fed in winter.

Since the creation of this park as a bird sanctuary cottontail rabbits increased in such numbers that they had become a nuisance as they destroyed the small fruit trees of neighbouring settlers. The drive of last winter destroyed large numbers and this year in two drives only thirteen rabbits were taken.

Open water wildfowl, such as scaup, redheads and canvasbacks, were not so plentiful as in 1922. The shoal feeding ducks, mallards, blacks, and baldpates, were about the same as last year. Teal and wood ducks were less numerous.

The lowering of the water levels has resulted in a decrease in the plant life which forms the food of muskrats and in consequence these animals have not increased this season.

As usual thousands of birds visited the park during the spring and fall migrations. Swans, black and mallard ducks arrived about the 20th of March and Canada geese somewhat earlier. The lakes of the park were still covered with ice but the birds subsisted on gleanings from nearby cornfields. Owing to the mild winter, the waters of lake Erie, remained open east of the point and hundreds of mergansers and coveens could be seen fishing for fry in these waters.

Fort Anne Park, Nova Scotia

Fort Anne park attracted about 11,000 visitors this year, 5,400 of whom entered their names in the register. These figures surpass all previous records. The notable events of the year were visits of Governor Channing Cox, of the State of Massachusetts, and his party, on July 21, and His Excellency the Governor General, Lord Byng of Vimy, Lady Byng and suite, on August 3. There have been some interesting additions to the museum and library during the year, including a curious document signed by and bearing the seal of the Duke of Marlborough as "Master General of the Ordnance" in the "First year of His Majesty's Reign" (ie., Geo. I, 1714) appointing a "Mattross" (gunner's assistant) to serve in "His Majesty's Train of Artillery at Annapolis Royal."

St Lawrence Island Parks, Ontario

The estimated number of visitors to the charming island National Parks among the Thousand Islands of the St. Lawrence river is 45,000, as against 42,000 for the previous year. These reservations provide inexpensive and wholesome holiday grounds for campers and picnickers in the southern part of the Dominion. The parks are provided with stoves, pavilions and other conveniences and are patronized by girl guides, boy scouts, school parties and similar organizations which require holiday facilities, including swimming and boating, at small expense.

Revenue

Statement of revenue collected within Canadian National parks for the fiscal year ending March 31, 1924, as compared with the previous year:—

Park	1923-24	1922-23	Net	
			Increase	Decrease
Rocky Mountains.....	\$ 66,756 06	\$ 62,975 25	\$ 3,780 81	
Jasper	6,266 43	5,708 80	557 63	
Buffalo	30,747 24	130 00	30,617 24	
Antelope.....	28 00	572 80		\$ 544 80
Glacier	390 18	405 32		15 14
Waterton Lakes.....	4,491 48	3,472 83	1,018 65	
Fort Anne.....	35 00	31 00	4 00	
Yoho.....	2,377 33	1,669 54	707 79	
Kootenay.....	3,832 20	88 20	3,744 00	
Point Pelee.....	28 00	3 00	25 00	
Brereton Lakes.....	20 00		20 00	
Elk Island.....	74 50	98 50		24 00
Vidal's Point.....	18 00	27 00		9 00
Fort Edward.....	25 00		25 00	
Moose Mountain.....		55 20		55 20
Miscellaneous.....	74 00	67 15		6 85
	\$ 115,163 42	\$ 75,304 59	\$ 39,858 83	

The Alpine Club of Canada**THE BANFF CLUB HOUSE**

(Report Prepared by the Secretary)

The club house season was a very quiet one. The first guests did not arrive until the latter part of June and while at times the building was well filled, the visits were of unusually short duration. It was stated in the town of Banff—not on Government authority—that out of fourteen week-ends during the summer

eleven had been wet. The usual number of visitors came from the hotels to gather facts about the mountain country. Quite a number of interesting expeditions were made during the summer.

Dr. Hickson with Mr. A. Geoffrion spent some four weeks at the head of the North and West fork of the Saskatchewan river. Watchman's peak and mount Spring-Rice were ascended but mount Bryce was unclimbable owing to weather conditions. Later on mount Rhondda and mount Hector were climbed. Somewhat later in the season Dr. Hickson made a most interesting climb of Cathedral Crags from Cataract valley. Mr. A. Carpe, accompanied by Mr. H. Palmer and Mr. W. D. Harris, visited the mountains south and east of Maligne lake and climbed mounts Brazeau, Henry Macleod, Valad, Unwin and Replica peak. The second and third named are called after the original discoverer of Maligne lake in 1877 and his guide. Mr. C. G. Wates and Dr. Bulyea made another most plucky attempt on the stubborn mount Geikie, but were defeated within 300 feet of the top. Drs. Thorington and Ladd with Conrad Kain made a long and interesting trip in the Columbia icefield region. They traversed mount Castleguard and made the first ascents of mounts Terrace and Collie. Mount Saskatchewan was also a first ascent. Mounts Columbia and Athabaska were also made. It will be seen how much good work was done. Messrs. Hall and de Villiers Schwab travelled in the Wood River country and made the first ascent of mount Clemenceau and other peaks. Miss C. Hinman again made a long trip in the mountains visiting mount Assiniboine, Kananaskis pass and lakes and by Whiteman pass and Cross river to the Kootenay. This they followed to its head and by Wolverine pass and Tumbling creek to Ottertail and McArthur passes and returned to lake Louise via lake O'Hara.

Our guests came from all over Canada and the United States, and also from Alsace, France, once again. They were drawn from the following places:—

Canada—British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick. *United States*—California, Illinois, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Pennsylvania, Washington, Oregon. *France*—Strasbourg.

LARCH VALLEY CAMP

(Report Prepared by the Secretary)

The eighteenth annual camp of the club was held in Larch valley above Moraine lake, from July 6 to August 9. The situation was a fine one and the view from the ladies' quarters superb. Seldom has a camp been more easily reached. Many motored directly from the club house to Moraine lake, and there then remained only the fairly steep ascent to the valley.

In the way of weather it was the strangest camp on record. For the first few days the weather was perfect. Brilliant warm sunshine, so warm in fact there was dread that the little stream which wanders through the valley and formed the water supply of the camp might dry up entirely.

However, there came a speedy change. On the night of July 30 snow started to fall and by early morning there were from eight to ten inches on the ground. Two tents were borne down by the heavy weight and it was only by continually scraping the snow off that the big dining fly was preserved. The snow dispersed fairly quickly but did not as in other years result in bright sunny weather. In fact the weather remained inclement for the greater part of August, consequently members cut short their proposed stay and returned to the cities with a result far from beneficial to the finances of the club.

A subsidiary camp was placed on the shore of lake O'Hara, which served the purpose of the two-day trip and also as a base for the climb of mount Odaray.

Some of the climbing was good, but the fresh snow and stormy weather altogether precluded such climbs as mounts Hungabee and Deltaform. In an ordinary season much good work could be done from Larch valley.

The so-called No. 10, which most people look on as an outlier of mount Hungabee, was the only first ascent made. Eiffel peak was used for training purposes and most of the graduates qualified on mount Temple, with varying



CLIMBING MOUNT RESPLENDENT—JASPER NATIONAL PARK.

fortunes some having a lovely view, others being wrapped in an electric storm, others in snow flurries and so on. Ascents were made of mounts Pinnacle, Neptuak, the latter most enthusiastically appreciated by all who made the ascent, and of mount Odaray. It had been hoped to make at least one ascent of mount Fay and perhaps others of the Ten Peaks, but weather rendered such plans hopeless.

The familiar and always delightful two-day trip, via Wenkchemna and Opabin passes to lake O'Hara and back via Abbot pass, was undertaken several times. The new and really luxurious hut built by the Canadian Pacific Railway at the summit of Abbot pass was greatly appreciated. Mitre pass was only once crossed as the ice conditions rendered it highly dangerous for all but the most expert. Still, it was remarkable how happy and cheerful every one was. The camp fires were highly successful and good fellowship reigned. Professor Fay and Sir James Outram told of the experiences of the earlier days; Dr. Munro Thorington and Dr. Ladd told of their latest experiences in the district of the great Columbia icefield and the Minneapolis section, but recently organized, celebrated an elaborate christening with great fervour. For the first time on record every one was ready to go, in fact almost all had gone before the last day of the camp.

The Swiss guides kindly lent by the Canadian Pacific Railway hotel department were Christian Hasler and Walter Feuz. It was the first experience of the latter in our camps, though other members of his family are very old friends. Both rendered excellent service under somewhat trying conditions.

There were 132 placed under canvas; among them representatives of the Alpine Club, England, the American, French and Swiss Alpine Clubs, the Appalachian Mountain Club, the Sierra Club, the Mazamas, and the Royal Geographical Society. Those present were drawn from the following places:—

Canada—British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec. *United States*—California, Massachusetts, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania. *England*—London. *Switzerland*—Flims.

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DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister

W. W. CORY, Deputy Minister

CANADIAN NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

1614



Annual REPORT
OF THE COMMISSIONER OF
CANADIAN NATIONAL
PARKS

FOR THE YEAR ENDING MARCH 31

1924/1925

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1926



Takakkaw Falls, Yoho National Park

DEPARTMENT OF THE INTERIOR, CANADA

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REPORT OF THE COMMISSIONER OF CANADIAN NATIONAL PARKS

FOR THE YEAR ENDING MARCH 31

1925

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1926

CANADIAN NATIONAL PARKS

REPORT OF THE COMMISSIONER, J. B. HARKIN

A steady growth continues in the use and development of the National parks. The number of Canadians who visit them grows larger each year and, the length of time they remain is longer on the average, showing that the parks are meeting a real need and rendering increasing service to the people. The volume of tourist travel last year was the largest on record, the total number of visitors reaching over 270,000. The figures according to parks are as follows:—

Rocky Mountains park.....	104,241
Jasper park.....	10,106
Yoho park.....	4,976
Glacier park.....	3,325
Mount Revelstoke park.....	3,000
Kootenay park.....	27,230
Waterton Lakes park.....	15,000
Buffalo park.....	15,302
Elk Island park.....	6,009
Nemiskam park.....	67
Point Pelee park.....	30,740
St. Lawrence Island parks.....	40,000
Fort Anne park.....	12,000
Total.....	271,996

To the above may be added 12,000 visitors to Vidal's Point, Saskatchewan, which is what is known as a "recreational area," a federal reserve set aside for recreational purposes but the scenery of which is not sufficiently outstanding to place it in the national park class.

As usual the heaviest travel was to Rocky Mountains park. This is partly accounted for by the fact that this park is connected with the outside world by motor highway from both the east and the west. Of the approximate 104,000 visitors it is estimated that 55,000, or roughly about one-half of the total, came by motor. Over 12,000 cars entered Rocky Mountains and Kootenay parks.

Jasper park continues to gain in popularity and is now becoming almost as widely known as Banff and Lake Louise. An interesting feature of the travel to this park is the fact that over 50 per cent of it is Canadian, a much larger percentage than is found at any of the other leading resorts.

While the increasing volume of travel is important from the economic point of view, the most gratifying feature is the more democratic use that is being made of the parks themselves. Time was when visitors consisted almost wholly of wealthy tourists who made the parks a stopping place for a few days on a transcontinental tour. The coming of the motor and the establishment of motor camp sites and small bungalow hotels in practically every one of the parks has brought the national playgrounds within reach of thousands. The need for such accommodation has been emphasized by the growth in the number of visitors to the Mount Rundle camp at Banff. This is illustrated

by the camping permits, which increased from 73 in 1917 to 2,388 in 1924. The development of a townsite at Lake Louise with tea rooms, stores, etc., has also made it possible for many hundreds of motorists to enjoy a stay at this beautiful spot at slight expense.

The most important extension in connection with this class of travel was the decision to open Yoho park to motor travel and the commencement of the building of two highways, the first from Lake Louise to Field, the second from Field to the western boundary of Yoho park, linking up with the British Columbia provincial road from Golden. Operations on both these roads were begun last year. The first continues westerly from near Lake Louise, gradually ascending to the Great Divide and thence descends through the Kicking Horse pass to the Yoho valley, utilizing in part, in British Columbia, a short section of the abandoned Canadian Pacific Railway right of way. This latter section by



Mount Niblock and Pope's Peak, Rocky Mountains National Park

which the railway made the descent of the west slope before the construction of the spiral tunnel, is one of the most thrilling and impressive from the scenic point of view in the entire Rockies, dropping by successive levels to the Kicking Horse below and affording magnificent views of the Yoho valley as far as the ice fields at its head. The new road, which it is expected will be open for traffic next season, will enable motorists to go on from Lake Louise across the pass and down to Field from which point existing roads give access to the Yoho valley and to Emerald lake. As soon as the road from Field west to Golden is completed the motorist will have within reach what will undoubtedly be one of the finest loop routes in the entire world. He will be able to proceed from Calgary to Banff and Lake Louise, thence to Field and Golden, thence by the Windermere valley to the Sinclair Hot Springs returning over the Banff-Windermere highway to Banff, and every mile of the way will be among scenery of the most spectacular kind.

Each year sees an increasing number of people who make use of the National parks as a field for exploring, climbing, and trail expeditions. Many of these travel simply for pleasure and the enjoyment of the wilderness but there is also a growing number of parties engaged in scientific and exploratory work.

The recent development of Jasper park has opened up a new base from which many regions, hitherto inaccessible, may be conveniently reached, and during the last few years much valuable exploratory work has been undertaken within and outside the park boundaries. In July a party of three, consisting of Mr. Val A. Fynn of St. Louis, Mr. C. G. Wates of Edmonton, and Mr. M. D. Geddes of Calgary, succeeded in conquering mount Geikie an outstanding peak of the Rampart group on the western boundary of Jasper park, a mountain which had successfully repelled a number of previous attempts.

The Alpine Club of Canada held a camp at mount Robson and a number of members succeeded in reaching the top. Among these were three women climbers who gained the honour of being the first of their sex to scale this difficult peak.

An event that will help to open up the mountains to lovers of the wild was the inauguration of the Trail Riders' Club of the Canadian Rockies. The object of the club is to encourage trail riding among the mountains. The first camp was held in the Yoho valley in July with Dr. Charles D. Walcott, Secretary of the Smithsonian Institution, Washington, D.C., and Mr. J. Murray Gibbon, of Montreal, Quebec, as presiding officers. About 206 Americans, Canadians and Europeans, including a number of prominent scientists, authors, and artists attended the camp and took the ride to Yoho glacier at the head of the Yoho valley. It is intended to hold a similar camp each year when a special program will be carried out and some interesting trail expeditions made by the members.

Distinguished Visitors.—Among the visitors to the parks during the year were about eighty members of the Imperial Service Squadron which was anchored at Vancouver for some time on its "All Empire" tour. The party came east by the Canadian Pacific railway as far as Calgary and visited Mount Revelstoke, Glacier, Yoho, Kootenay, and Rocky Mountains parks on the way, returning by the Canadian National railways and Jasper park. Members of the party expressed themselves as surprised and delighted by the magnificence of the Canadian mountains, and Mr. V. C. Scott O'Connor, the historian of the expedition, wrote three interesting articles for the "Blue Peter" giving an account of their trip.

Among the other distinguished visitors was Mr. Stephen Mather, the Director of the United States National Parks Service. Mr. Mather made a tour of the principal Canadian parks and investigated the Canadian methods of administration. Although there has always been close co-operation between the National Parks services of the two countries, Mr. Mather's visit did much to inform the local superintendents of methods employed in the United States parks and the discussion and comparison of details of administration in the two services was of mutual interest. Mr. Mather's visit to Waterton Lakes park was of special value since he looked into the question of the building of the motor highway connecting the contiguous United States Glacier National park with the Canadian park. The question of better trails and of additional ways of linking these two areas into an international playground is a matter which both services have at heart.

Among other visitors was Mr. Jacques Berlioz, a naturalist who was sent out by the French Government to make a study of the natural history of the

Canadian National parks. Mr. Berlioz spent some time in the chief parks and a report of his investigations was prepared for the French Government and published in monograph form.

PUBLICITY

Publicity work covered the issue and distribution of illustrated booklets, the writing of special magazine and newspaper articles, the distribution of photographs and enlargements, the carrying on of special lecture work and the circulation of films and slides.

The Director of Publicity went to England for the opening of the Empire Exhibition at Wembley and remained, until its close in the autumn, in charge of the parks exhibit. While there he delivered a number of public addresses and lectures to prominent educational and other societies and arranged for the circulation of prepared lectures, films, and slides. The decision to open the exhibition for a second year necessitated a second edition of 100,000 copies of the national parks and general tourist booklet "Canada."

"The Call of Untrodden Ways," a small pamphlet on Jasper park, issued in 1924, proved so popular that a second edition of 10,000 copies was necessary to meet the demand.

Publications distributed from head office during the year totalled 76,074; in addition there were 110,000 distributed at the Wembley exhibition.

Photographs of park scenery, wild life, flowers, etc., distributed, numbered 5,250, enlarged photographs 896. Prepared lectures numbered 62, slides loaned 3,348. Countries to which slides were sent included: England, Wales, France, New Zealand, United States, and India.

About 300 special articles were prepared on many different phases of the National parks and these appeared in magazines and newspapers throughout Great Britain, the United States, Australia, New Zealand, France, Italy, Holland, Germany, Russia, India, and Japan.

Special lectures were carried on in Eastern Canada and the United States by the official lecturer. Two hundred and twenty-six lectures were delivered, in many Canadian towns and cities and in Cleveland, Toledo, Buffalo, Philadelphia, New York, Brooklyn, New Haven, Springfield, and other United States cities, the total audiences aggregating approximately 65,000.

Thirty-six thousand illustrated pamphlets in English and French dealing with Canadian historical sites were distributed. In addition, about two hundred articles on the historic sites were prepared and issued for publication in magazines and newspapers. Lectures, with 60 slides, were circulated to the number of 13.

TOWN PLANNING

The town planning contribution to the work of the National parks consisted in the supervision of building plans and the arrangement of building areas in conformity with modern ideas of town planning and in harmony with the environments which constitute the settings of the urban districts of the parks. All plans submitted were carefully examined by the architectural and town-planning staff and, where necessary, revised and remodelled in accordance with accepted standards of building.

The work of the year included:—

Sketch designs for the improvement, from an æsthetic viewpoint, of fronts to a number of buildings on Banff avenue, Banff.

Revised designs for a new hotel and thirty-two bungalows in groups, also for open-air swimming pool at Waterton Lakes park.

Plans for an extension of the Mount Rundle automobile camping grounds, Banff.

Designs for furniture for the visitors' rest room at the Kootenay park entrance gatehouse.

Preliminary designs for the new barracks building for the Royal Canadian Mounted Police at Jasper.

Designs were also examined, some revisions made and final plans approved of a number of important buildings, including the new station building at Jasper for the Canadian National Railways, to replace the building which was destroyed by fire. Also a new main building extension to the Canadian Pacific Railway chalet at Lake Louise, Rocky Mountains park, to replace and enlarge the original structure destroyed by fire.



Marion Lake and Swiss Peaks—half way up Mt. Abbott, Glacier National Park

TIMBER PROTECTION

The season was a fortunate one in the National parks from the point of view of forest fires. Owing to frequent rains the situation at no time became serious and there was only one fire in any of the parks which caused alarm. This occurred in Jasper park in the Whirlpool region, a district situated over 20 miles from headquarters in very rough and mountainous country. Fortunately, however, owing to the prompt action of the warden staff, aided by men from the road construction camp, this fire was got under control and extinguished before any serious damage was done. The following is a list of the fires during the year, showing the causes, damage and cost of extinguishing:—

DEPARTMENT OF THE INTERIOR

FIRES IN CANADIAN NATIONAL PARKS

GENERAL FIRES

Park	Causes						Areas burned over (Acres)				Cost of extinguishing
	Total no. of fires	Unknown	Campers	Lightning	Smokers	Other causes	Timber	Grass	Young reproduction	Total area	
Rocky Mountains.....	13	2	4	1	4	2	1			1	\$ cts. 204.42
Jasper.....	9		4	1	3	1			804	804	3,162.60
Yoho.....	4		1	3							48.54
Glacier.....	1			1							16.00
Buffalo.....											
Elk Island.....											
Kootenay.....	4	1	2	1			3			3	400.22
Mt. Revelstoke.....	3		1	2			6	6	2	14	137.35
Waterton Lakes.....											
Pt. Pelee.....	1	1						300		300	
Totals.....	35	4	12	9	7	3	9	306	806	1,121	3,969.13

RAILWAY FIRES

Rocky Mountains.....	40	6	1			33	1	15		16	\$ cts. 35.67
Jasper.....	18	2			1	15		13	101	114	178.05
Yoho.....	5	2				3					13.00
Glacier.....	3					3					7.50
Totals.....	66	10	1		1	54	1	29	101	131	234.22
Grand totals, all fires....	101	14	13	9	8	57	10	335	907	1,253	4,203.35
Grand totals, all fires, 1923-24*.....	41	10	5	6	2	17	2,200	1,447	604	4,252	2,451.79

*Owing to later returns the figures here differ somewhat from those in the 1923-24 report.

The value of the portable pump in fighting forest fires is attested by the experience of each year and the number in the several parks is being gradually increased. Twelve new pumps were purchased last year, bringing up the number in the parks to fifty-six. The other parts of the equipment such as water-bags for man-pack and pony-pack, hand-pumps, etc., have been gone over carefully and new supplies are made as light as possible consistent with strength and capacity. Each portable pump is equipped with 2,000 feet of hose, the larger pumps with 3,000 feet, with four nozzles to each unit, and the necessary accessories to enable speed to be made in attacking fires. The annual training classes of the warden staffs have become an important feature of the work. A high standard of proficiency has been shown in the answers submitted in written examinations as well as in practical tests held at the termination of the course. Circular letters giving the latest information on the subject of fire protection were also sent at intervals to the warden staffs.

Nine new cabins were built during the year; 40.75 miles of trails were constructed, 20 miles rebuilt; and 38.75 miles of new telephone lines were erected. The warden patrol mileage totalled 230,176, an increase of over 5,000 miles above the previous year.

THE PARKS' FAUNA

Each year it becomes clearer that an important function of the National parks is the keeping of a part of Canada in its original pristine condition so far as wild life is concerned. If this condition be maintained the parks will always be of value because on the economic side they will serve to supply depleted areas with wild creatures, and on the aesthetic and scientific side they will provide easy access for the study and observation of animal life, particularly of the larger animals which can be readily observed in few other places.

Buffalo.—A census of the buffalo herds March 31, 1925, resulted as follows: Buffalo park, 7,919; Elk Island park, 404; Rocky Mountains park, 22; total, 8,345.

The buffalo herd at Wainwright has outgrown the average grazing capacity of the park, and consequently it has been decided to ship about 2,000 young



Consolation Lake, Rocky Mountains National Park

animals to the Wood Buffalo reserve in northern Alberta, these shipments to begin upon the opening of navigation. As it is thought that young animals would be more likely to settle down in a new environment it has been decided that shipments shall consist of one-year-old and two-year-old animals only.

Experiments in cross-breeding buffalo, yak, and domestic cattle with a view to the development of a new range animal have been carried on by the Department of Agriculture in co-operation with this branch with encouraging results.

Predatory Animals.—In order to make the National parks continue to represent, so far as possible, normal wild life conditions in those parts of Canada where the parks are situated, the superintendents in charge have been instructed to proceed with caution in controlling various forms of wild life usually considered destructive. The superintendents have full authority to control predatory animals that are damaging property, but no wholesale campaign

against any mammal merely because it has utilized some other wild life in maintaining itself has been undertaken. This is regarded as important as tending to conserve valuable fur bearers. For example the marten has been seriously reduced in numbers outside of the park areas. One of the functions of the parks should be to serve as a reservoir for maintaining such important species.

Shipments of Animals.—A total of fifty-four animals, comprising Rocky Mountain sheep, Rocky Mountain goat, elk, bear and buffalo, was shipped from the various parks to points throughout the world, as follows: Austria; Pretoria, South Africa; Antwerp, Belgium; Edinburgh, Scotland; St. Louis, Missouri, U.S.A.; Seattle, Washington, U.S.A.; The Olympic Mountain Reserve, Washington, U.S.A.; Vancouver, British Columbia; Lethbridge, Alberta; Fort William, Ontario; London, Ontario; and Montmorency Falls, Quebec.

Fish.—The fish supply in the parks has been maintained and supplies of fry have been distributed to lake Annette in Jasper park, and to the lakes in Waterton Lakes park. Thanks are due the United States Bureau of Fisheries for its courtesy in supplying 25,000 cut-throat trout eggs from Yellowstone National park, in exchange. Twenty cans of rainbow trout fry were received from Glacier park, Montana, U.S.A.

Fish-cultural investigations of certain lakes in Jasper park are progressing and steps have been taken to control pike and suckers in Waterton Lakes park. The officers of the Department of Marine and Fisheries have continued their co-operation in maintaining the fish supply of the National parks.

ACTIVITIES IN THE NATIONAL PARKS

A brief summary of the tourist and other activities and of the improvement work carried on in the national parks is given below.

Rocky Mountains Park

Since the opening up of the Banff-Windermere highway, motor travel to Rocky Mountains park has been steadily on the increase. The total number of visitors to the park was larger than in any previous year, reaching, it is estimated, over 100,000. The figures are:—

	Persons
Banff Springs Hotel.....	16,387
Chateau Lake Louise.....	14,584
King Edward Hotel.....	6,891
Mount Royal Hotel.....	5,450
Hotel Bretton Hall.....	4,577
Homestead Hotel.....	2,151
Cascade Hotel.....	1,528
Brett Hospital.....	397
Hot Springs Hotel.....	333
Alpine Club House.....	126
Camping Permits (2,388).....	12,193
11,439 autos registered, less campers as above.....	31,703
Cottagers, 350 families, at 5 persons each.....	1,750
Y.W.C.A. summer camp.....	2,871
Middle Springs Camp.....	100
Week-end excursionists.....	3,200
Total.....	104,241

Of the 55,295 persons who registered at the hotels, 19,161 were Canadians and 36,134 from other countries.

As a result of the large number of visitors the bath houses, museums, and golf links all had an unusually busy season. There were 50,290 bathers at the Cave and Basin, or 3,964 more than the highest previous record. Aside from this, over 30,000 signed the register in the Cave.

At the Upper Hot Springs bathers totalled 25,114, or 7,165 more than in 1923-24, which was a poor year owing to a cessation in the flow of the springs during part of the winter. The temperature remained steadily at 113° F., which is just 2° below the maximum.

Camping.—The establishment of camping grounds has been a great convenience to tourists. The increase in the number of people who made use of these sites is shown by the records for the past eight years:—

Year	Permits Issued	Year	Permits Issued
1917.....	73	1921.....	338
1918.....	57	1922.....	509
1919.....	77	1923.....	1,693
1920.....	200	1924.....	2,388

The Mount Rundle camp site continues to be popular and many commented upon its excellent facilities. The total registration showed 3,241 cars carrying 12,193 passengers. Of the cars 2,534 were Canadian and 717 from the United States.

Walking Tour Camps.—The walking tours, organized by Mr. A. O. Wheeler, Director of the Alpine Club of Canada, were continued as usual. This is one of the least expensive and most pleasant ways of holidaying in the mountains. This year thirty-nine persons made the trip to mount Assiniboine.

Game.—As in other years, reports from various sources show that game is steadily increasing and appearing in new localities each year. The elk are apparently doing well. They have been seen in the townsites of Banff and Canmore and in all the outlying districts of the park. Moose are also increasing and are found along the Spray lakes, Kananaskis lakes, Cascade river, Healy creek, Brewster creek, Redearth creek, and Bow lakes. Deer are plentiful and are frequently seen in the streets of the townsite.

Rocky Mountain sheep are now to be seen along the motor highway at Kananaskis, Exshaw, The Gap, Vermilion lakes, Sawback, and Johnston canyon, and are a great attraction to tourists. Rocky Mountain goat usually range back from civilization, though one band is frequently seen along the motor highway near Sawback.

No infractions of the game regulations were reported during the year.

Forest Protection.—The year was a fortunate one with regard to fires. Thirteen outbreaks in the park were reported but they were soon extinguished and the total area burned over was less than half an acre. Railway fires along the right of way numbered forty-two and burned over areas totalling approximately 20 acres.

Permits to cut timber were issued as follows: Thirty-one permits to cut merchantable dead timber; forty-two resident permits for fuel; two green-timber permits for building purposes.

Grazing permits numbered fifty-six and covered 232 head of horses and 249 head of cattle.

Roads, Trails and Cabins.—No new roads were built in the park but existing roads were maintained and improved. Four and one-half miles of surfacing was done on the Banff-Kananaskis section and approximately $7\frac{1}{2}$ on the road to Lake Louise. This road is being brought up to a uniform width of 16 feet. The Lake Louise-Moraine Lake road was widened so as to convert it into a two-way road, and opened to two-way traffic on August 1. A new trail was constructed from Massive to the head of Johnston creek and another from Stoney Squaw mountain to the foot of Mount Edith pass connecting with the Forty Mile creek trail. Two new cabins were built, one at the head of Dormer river, the other on Cascade river.

Health and Sanitation.—Tests of milk and water supplies were made frequently, the dairies were inspected and cattle tested for bovine tuberculosis; no reactions were found. Frequent inspections were made of the various townsites, outlying places of business, camp grounds, refuse disposal areas and sources of water supply.

Townsites.—While the administration of townsites in the parks is in the hands of the department, the citizens' associations of Banff and Canmore have made many valuable suggestions which the department has been glad to consider and so far as possible to put into effect.

No new construction work was undertaken in Banff but streets, sidewalks and boulevards were maintained in good condition and the general appearance



Valley of the Ten Peaks, Rocky Mountains National Park

of the town kept as attractive as possible. Building permits covering construction to the value of \$22,150 were issued.

In co-operation with the Calgary-Banff-Lake Louise Tourist Association, a tourist bureau was opened in Banff, the department erecting the building

and supplying maps and literature for distribution. It is estimated that from 200 to 300 requests for information were filled each day at the bureau during the busy months.

Canmore.—A marked improvement is noticeable in this townsite. Sanitary conditions have been bettered while the planting of trees along the sidewalks and the installation of a street lighting system have added both to the appearance and convenience of the town.

Lake Louise.—During the summer a disastrous fire destroyed a large part of the Chateau Lake Louise, owned and operated by the Canadian Pacific Railway Company. Fortunately no lives were lost. Reconstruction of the destroyed section was begun in the late fall and the new building it is expected will be ready for guests by the opening of the tourist season.

Electric Light and Telephone Services.—At the end of December there were 552 electric light connections on the books. The revenue for the year from this service was \$31,343.77. The telephone connections at present number 233 and applications are now in excess of the board capacity. An extension to this system is urgently required.

The volunteer Banff fire brigade carried on its work in an efficient and satisfactory manner. Thirteen fires took place during the year with an aggregate loss of \$3,645. The night patrol of the Royal Canadian Mounted Police has been of valuable assistance, a number of small fires having been discovered by them and quickly extinguished.

Mosquito Control.—The work in connection with mosquito control at Banff was continued with excellent results. Under an officer of the Dominion Entomological Branch an oiling gang worked over practically the entire valley from the village of Banff to some four miles west. Work was begun as soon as pools were formed in the early spring by the melting snow and continued until the flood pools left by high water were all dealt with. The breeding areas have all been mapped out and the valley has been divided off into a number of oiling districts. Complete control cannot be expected owing to the difficult nature of the country, but excellent practical results have been obtained and an almost complete freedom from this pest is assured.

In addition to the above the Entomological Branch has carried on investigations with regard to the types of mosquitoes found in the vicinity, their habits and life histories. Tests also have been made of a large number of oils and larvicides which resulted in the use of a special mosquito oil which is far superior to the kerosene formerly employed.

Investigations with regard to predators such as salamanders, fire flies, minnows, etc., have also been carried on with a view to discovering natural aids to the artificial control by oiling. The results of the last three years' work have proved that mosquito control at the mountain resorts is neither difficult nor expensive once the various breeding places have been located and mapped.

Recreations.—The fishing season was a good one and many fine catches were reported. Restocking was carried on from the Banff hatchery and the following fry liberated in lakes and streams in the park: cut-throat trout, 159,348; salmon trout, 121,943. Forty-five thousand rainbow trout fry were also sent to Yoho park and 60,000 salmon trout to Waterton Lakes park.

In spite of the wet season the golf course had a very successful year. The new 9-hole addition was opened at the beginning of the summer, bringing the course up among the best 18-hole courses in the West.

There are now three important events which take place annually and attract large numbers of visitors: the Banff regatta in May, the "Indian Day" celebration in July, and the Banff Winter Carnival. The regatta was held on the Bow river on May 24, and in spite of showery weather was most successful. The

Indian celebration, the 34th of its kind, took place on July 23 and 24, and was one of the best yet held. Between 400 and 500 Indians took part in the daily parades, which were more gorgeous even than usual and aroused the admiration of all visitors.

The ninth Winter Carnival, which took place February 7-14, was well organized and most successful both from the point of view of attendance and financially. All the Banff hotels were crowded during the event and many private houses opened their doors to accommodate visitors. The excellent work of the Banff citizens' committee and the efficient co-operation rendered by the city of Calgary, which dropped its own carnival in favour of Banff and subscribed most generously to the funds, together with the assistance rendered by the Royal Canadian Mounted Police—all these factors combined to make the carnival what it now is, the premier winter attraction of the West.

The annual Bonspiel of the Banff Curling Club was held during the carnival. Twenty-five rinks entered the competitions, fifteen of them coming from outside points in Alberta and British Columbia.

Museum, Zoo, and Animal Paddocks.—The Museum and Zoo continue to be popular with visitors and were visited by thousands during the season. The exhibits of mammals in the Museum are being classified in accordance with an authoritative list of North American mammals. A number of plants and birds were added to the collection. There are at present forty animals in the Zoo.

The animal paddocks now contain 22 buffalo, 15 elk, 1 Persian sheep, 10 Angora goat, 14 Rocky Mountain sheep, 5 Rocky Mountain goat, 14 four-horned sheep, and 7 yak.

Yoho Park

The most important work undertaken in 1924 was the commencement of the construction of the Stephen-Field section of the Lake Louise to Field highway. By the late autumn, clearing and grubbing were practically completed and as soon as the spring opens grading will be undertaken.

Surveys were completed west of Field for a highway to the western boundary of the park which will link up with the British Columbia provincial road from Golden east. During the year the Canadian Pacific Railway Company carried out a grade revision between Misko and Leancoil, and abandoned about three miles of old grade. This old right of way will be utilized for part of the Golden-Field highway.

A new trail, 3 miles in length, was built from the Emerald Lake chalet to Hamilton falls, a very pretty waterfall discovered by a man of that name. This will be a very interesting objective for visitors staying at Emerald Lake chalet. There is a fine gorge, 100 feet deep and 10 feet wide, which leads to two separate falls, each 100 feet high. Fine views are afforded along the way of the basin of Emerald lake. A trail was opened up by the Canadian Pacific Railway Company connecting their camp at lake O'Hara with Vermilion Crossing camp in Kootenay park, the route, about the middle, passing along the Washmawapta ice fields.

The restoration of Twin falls was carried out late in the autumn. The second channel, which had been blocked for two or three years, was blasted out so as freely to admit the water and there is now an even flow along both channels.

A marked increase in big game is noted, especially moose, deer, and bear. Marten, beaver, and mink are also numerous. A careful check was kept on all parties travelling through the park, but no infringements of the game laws occurred. There were no serious fires.

Each year shows a steady increase in the number of visitors, and the Emerald Lake chalet and the various camps were filled throughout the season.

Both Yoho and Lake O'Hara camps were enlarged by the addition of several cabins. In the autumn a new tea house was built by the Canadian Pacific Railway Company at Hector, commanding magnificent views of the Yoho and Kicking Horse valleys, and plans are being prepared for further additions to the bungalow camps next year.



Mount Burgess and Emerald Lake, Yoho National Park

Glacier Park

The Nakimu caves are attracting larger numbers of visitors each year. The construction of the tea house by the Canadian Pacific Railway Company has met a long-felt want and proved a great attraction. For the benefit of visitors who come to the caves by tally-ho a new trail was cut by the Parks Branch from the end of the carriage road to the first cave, reducing the distance by one-half.

Development work at the caves was continued. The top and bottom passages of "The Grand Canyon" were connected by a new stairway and about 150 feet of new cave was opened up. Further exploration work was carried out in the autumn months. There are indications that by working down from the Chamber of the Sphinx a new exit for cave No. 4 can be found, which would be a great convenience to visitors.

No serious outbreaks of forest fires occurred and although there were numerous small fires they were easily extinguished.

Game appears to be slowly increasing. Caribou were observed in larger numbers in the Flat Creek district, and black bear all over the park. Fur-bearing animals are numerous, especially beaver, mink and marten.

Waterton Lakes Park

Tourist travel to Waterton Lakes park was somewhat less than had been expected owing to the wet season. It is estimated, however, that the total number of visitors reached 15,000.

Game.—Mountain sheep, mountain goat, mule deer, and bear, both black and grizzly, are on the increase. Reports were received that elk had been seen, and it is hoped that they will stay. Only four or five white-tailed deer have been seen this year. Beaver are increasing to such an extent that they are becoming a nuisance in places, more especially in the Belly River district and near the old saw-mill site on the telephone trail going to Belly river. Thousands of ducks and geese and hundreds of swan rested when on their way south.

Fish.—As usual this sport had many devotees and several good catches were reported. Thirty-five thousand rainbow trout fry and four thousand brook trout fry were received from the United States Glacier National Park, and were placed in Pass creek, Cameron creek, and Lineham brook. Sixty thousand salmon trout fry were received from the Banff hatchery and placed in the Waterton lakes.

Fires.—No fires occurred in this park.

The Townsite.—Many improvements were made in and about the townsite that added to its general attractiveness. Several streets were graded and gravelled, a new road built to Cameron bridge and another to the campsite. Blocks 40, 41 and 42 were reserved as public recreation grounds, three double tennis courts constructed on block 39, and two shelters erected. Blocks 36, 37, 38 and 44 were set aside as public campsites, the grounds were cleared, and shelters with tables, benches and concrete stoves erected. The new boathouse at Linnet lake was completed before the season opened and met with great favour from the public.

Roads and Trails.—A new trail, which will be of advantage to visitors and also facilitate fire protection work, was made from Twin Lakes trail to South Kootenay Pass trail. Waterton bridge was levelled and four piers reinforced by cribbing. Graveling and widening were done on the Cardston and Pincher Creek roads, the main road was gravelled where necessary and a new grade made up Pass creek hill. The road via Pass creek to Akamina pass from Waterton townsite was gone over, several new bridges and culverts built, and rocks blasted so as to make it passable for traffic.

Kootenay Park

The Banff-Windermere Highway was opened for traffic on June 1, and until it was closed by snowstorms in December was in first-class condition throughout its whole length in Kootenay park. Motor traffic was much heavier than during the preceding year. The total number of cars registered in the park was 7,780. Of these 5,746 were from Canadian points and 2,034 from the

United States. The total number of passengers carried was 26,375. Over 800 more persons paid for admittance to the Hot springs than in the previous year. The figures are: 1923-24, 5,954; 1924-25, 6,811.

Game.—There has been a noticeable increase in the number of game animals throughout the park, especially elk, moose, and deer. The band of bighorn sheep near the Radium Hot springs showed an increase in numbers and



Nearing Sinclair Canyon on Banff-Windermere Highway, Kootenay National Park

is naturally a great attraction to tourists. Winter patrols by the wardens were carried out throughout the park and a careful watch maintained to ensure that no poaching took place. Seven coyotes were destroyed.

Fire Protection.—There were four outbreaks of forest fire, three of which were of a minor nature. The other, which occurred near Kootenay Crossing,

seemed for a time likely to prove dangerous, but owing to favourable weather conditions, it was got under control, less than three acres being burned over.

Aeroplane Landing.—Clearing and burning were undertaken near Swede creek at the site selected for an aeroplane landing and it is hoped to have the ground ready for use as a landing place during the coming season.

Mount Revelstoke Park

Repairs and improvements to the Mount Revelstoke motor highway, which is completed to within two miles of the summit, were carried out, permanent fills and dry rock walls being put in to replace decaying wooden cribwork over a considerable part of the road; bridges and culverts were also renewed, and narrow places widened, all of which combined to put the road into very satisfactory condition.

The park trails were cleared out and repaired and considerable relocation work was done on the Lindmark trail. The North Boundary trail was carried farther up the mountain. Fire trails were made to five bodies of water near the summit of mount Revelstoke which will greatly facilitate the rapid movement of fire-fighting equipment.

Tourist travel was greatly in excess of any previous season. Over 500 motor cars with approximately 1,600 passengers went over the road, many visitors walking to the summit from the end of construction. It is estimated that 800 visitors made use of the public motor camp site.

The eleventh annual ski tournament, staged by the Revelstoke Ski Club on February 3, 4, and 5, was very successful and was attended by over 1,400 persons.

In spite of a very dry season there were only two minor fires, both started by lightning at an elevation of 5,000 feet, on steep mountain sides, where it was impossible to use the portable pump. They were, however, fortunately extinguished without serious loss.

Game of all sorts appears to be on the increase. Game birds are especially numerous and are met with on every trail. Predatory animals seem few in number. Caribou and deer tracks were numerous in the winter and during the summer deer appeared openly in many places.

Jasper Park

Jasper park becomes more widely known each year and is attracting a large number of visitors. Registrations for the past year totalled 10,106. The Jasper Park lodge was filled throughout the season and it is clear that even the enlarged accommodation of last year will soon be insufficient.

Game.—The game animals in the park have evidenced a steady increase, so much so, that each year they are taking up more and more of the available grazing area and consequently limiting that set aside for the grazing of domestic animals. The herd of 100 elk introduced from the Yellowstone park have done exceedingly well. Scattered bands of elk are now found in many parts of the park and while it is difficult to ascertain their number, over such a wide area, the superintending warden believes that 650 would be a conservative estimate.

Bighorn sheep are now found in practically every section, in flocks of varying size. Wardens report a very noticeable increase in goat, which have appeared in many new areas. The young stock are said to be particularly strong and healthy.

Grizzly bears are increasing rapidly in a number of areas, particularly in the Snake Indian and Smoky River valleys, and up the Rocky river black bears are increasingly numerous.

Moose appear to be adopting Jasper park as a sanctuary and breeding ground. Deer are now noted in nearly every valley in the park and their tameness gives great pleasure to visitors. The appearance of the large mountain caribou in two localities is a matter for great satisfaction. Some magnificent specimens with wonderful antlers have been seen and it is hoped the protection afforded in the park may help to save these interesting animals which outside of park areas are reported to be rapidly disappearing.



Mount Edith Cavell, Jasper National Park

Fur-bearing animals are increasing rapidly, beaver are especially numerous and marten, fisher, mink and muskrat are seen in larger numbers each year.

The opening up of the Snake Indian River country by new trails has enabled the wardens to control the inroads of timber wolves which were destroying game in that district.

Fish.—Fishing conditions are practically the same as last year. Some good catches were made, especially in the Buffalo Prairie area and in Pyramid lake. Some restocking was done by imported fry and by the hatching of Loch-leven and cut-throat trout eggs.

Fires.—Although eighteen railway fires were reported during the season, no forest growth was burned. This evidently satisfactory condition is due to improved fire-fighting appliances and to the close co-operation of the staff of the Canadian National Railways.

General fires were more serious than usual, particularly the one at the Whirlpool which was most difficult to handle owing to the distance from headquarters and the difficulty of transportation. Although there were several fires in other parts of the park none of them got beyond control or entailed serious damage.

Roads and Trails.—The Mount Edith Cavell highway begun in 1916 was completed. The road is $16\frac{1}{2}$ miles long, and brings motorists to within approximately one mile of the glacier. Construction work was proceeded with in the Jasper-Pocahontas highway, a large bridge being built across the Athabaska and another across the Rocky river. Three large trail bridges of logs were constructed one at Geikie over the Miette river, and one across the Snake Indian river, and one across the Maligne river near Maligne lake. The bridge over the Athabaska river includes the longest wooden span highway bridge in Canada and possibly in America.

Several trails were built during the year which will open up new country with game and scenic attractions. These included the Snake Indian valley system, trails up the Portal creek valley, and the extension of the trails on both sides of Maligne canyon toward the outlet. During the fire in the Whirlpool area a rough wagon road $1\frac{1}{2}$ miles long was cut to facilitate fire-fighting operations.

In the townsite new streets were opened up and graded and approximately $1\frac{1}{4}$ miles of sidewalk and boulevard constructed.

Water and Light.—Preliminary surveys were carried out for the construction of a reservoir dam and pipe line for a permanent water supply system. An electric light and power line was put in from the administration building to the corrals.

Cabins.—Four new cabins were built, one $2\frac{1}{2}$ miles south of the Athabaska falls where there is good grass for horses; another in the Tonquin valley and two along the Willow creek-Smoky river trail.

Golf Course.—The golf course on which work had been started by the parks engineers, to the east of Jasper Park lodge grounds was taken over by the Canadian National Railways during the year. The extension of the course was immediately undertaken and has been prosecuted with much vigour.

Telephones.—Telephone communication throughout the park was maintained in a satisfactory manner by a constant patrol of all lines. There are now 267 miles of line within the park, and thirty instruments; the longest single line being from Jasper to Brazeau lake, via Athabaska falls, Sunwapta and Waterfalls cabins. The Hoodoo creek line is in good order and proved most useful as it kept local headquarters in touch with the northern boundary where an exceptionally large number of hunting parties were travelling last fall.

Buffalo Park

As in the past, constant patrols were carried on about the park fences. The fireguards were ploughed about the entire boundary both inside and outside the fence, as well as all cross guards within the park. Fencing work was exceptionally heavy, over 35 miles of main fence being repaired and 13 miles of new fence constructed.

Farming operations were again confined to the growing of oats. Approximately 528 acres were under crop and later 200 acres were summer-fallowed for the coming year. As a larger quantity of green feed was required than usual, owing to the proposed shipment of young buffalo to the north, only 345 acres of crop were threshed from which 8,610 bushels of oats were obtained. This yield was sufficient to meet all the requirements of the park, including seed for next year, and to allow shipments of 5,000 bushels to other National parks as well. A total of 755 tons of hay was obtained, practically all this year's growth, and well saved.

Abundant rains in the late summer greatly improved pasture conditions and the buffalo were in fine condition by the time they were driven into winter quarters. Approximately 1,200 calves of the 1923 and 1924 increase were segregated in the fall for the northern shipment.



Buffalo of the main herd, Buffalo National Park

The winter was a hard one on all wild animals and taxed the feed supply of the park. It was found possible to turn the animals into the Ribstone meadow after the crop was taken off and this gave them grazing for two months.

The animals in the park at the end of the fiscal year were: buffalo, 7,919; elk, 312; moose, 30; deer, 1,188; antelope, 4; cattalo, 14; yak, 21.

Sixty-four coyotes were destroyed, the majority by the park wolf-hounds, during the year.

Elk Island Park

The buffalo here wintered in fine condition, although owing to the long cold and deep snow it was necessary to feed the herd. The animals in the park now number: buffalo, 404; elk, 400; moose, 200; mule deer, 300; the last three being estimates founded on the observations of the wardens. One pair of buffalo was shipped to Scotland.

Coyotes were very plentiful and by shooting and use of dogs the wardens destroyed eighteen. The resident game birds are very numerous. Heron are seen in numbers and each year hundreds of ducks come to the park waters, many of them to breed.

A new road was opened from the northern boundary of the new park area to the southern boundary which will enable motorists to see a good deal more of the park and its wild life. The road to Sandy beach was graded and generally repaired. A corral 100 feet square with a wing fence was erected at the south end to facilitate the penning and loading of animals for shipment. About $2\frac{1}{4}$ miles of fence were put up, making an enclosure for a horse pasture. Two bath-houses were built at Sandy beach for the use of visitors, also a landing stage out 50 feet from the island in the picnic grounds.

Nemiskam Antelope Reserve

The condition of the antelope herd in this reserve continues most satisfactory. There was an increase of fifty-five during the year, bringing the total number of animals now in the park up to two hundred and thirty-five. The cold weather in June resulted in the loss of a number of fawns which are very delicate when first born and cannot withstand chill. There was also some loss to adults from coyotes which are one of the greatest enemies of the antelope and extremely difficult to keep out of the park. Feed conditions were very good during the summer with an abundance of grass for winter.

The extremely dry summer caused a drying up of the natural springs and necessitated the drilling of a well. This was undertaken in November and a flow of 25 gallons per minute was obtained, sufficient to ensure an abundant water supply for the future.

Considerable difficulty was experienced with the Russian thistle. Every high wind blows this weed against the fences in such huge quantities as to form a snow guard which often breaks them down. A patrol of the fences during the bad season and burning of the weed is the only solution of the problem.

It is interesting to note that although the herd is enclosed in a more or less restricted area no deterioration appears to have taken place. Judging from the results obtained here there seems every reason to believe that antelope can be successfully preserved if their requirements are studied and the proper measures taken.

Point Pelee Park

Although this park is small in area it is rendering an important service both in the conservation of bird and plant life and in affording a place of recreation for increasing thousands of visitors. Its proximity to Detroit and other centres of population in the United States as well as in southwestern Ontario makes it an easily accessible resort for visitors and each year it is attracting a larger volume of travel. It is estimated that 7,685 cars entered the park last year carrying 30,740 persons. Visitors began to arrive in April and continued through November until the snow put an end to motor travel.

The long stretches of sandy beach and exceptional opportunities for lake bathing were taken advantage of by hundreds throughout the season as were also the picnicking facilities. A large party of Girl Guides from Walkerville and Windsor, Ontario, spent two weeks in the park under canvas and two regiments of Boy Scouts enjoyed similar privileges.

Good order prevailed. The park was patrolled by the Royal Canadian Mounted Police and there were no infractions of the regulations.

All roads in the park were greatly improved by the surfacing, grading, and brushing carried out.

Wild Life.—The result of six years conservation begins to be apparent. Quail (native) and ringneck pheasants (introduced) have both noticeably

increased and are restocking the adjoining farmlands. Black squirrels have increased about 400 per cent since their introduction from the Rondeau Provincial park in 1921 and 1922. Raccoons are also becoming plentiful. Muskrats have not done so well, owing to the low water levels of the past two years and scanty supply of natural food. In March fourteen permits were issued to bona fide residents of Point Pelee to trap muskrats in the open season but the entire catch totalled only 685.

Carp continue to be a menace and so far no means of successfully combating this pest have been found. They appear to be consuming the wildfowl foods almost as fast as they are replenished as well as feeding upon the spawn of the black bass.

Migratory Birds.—During migration the park was as usual the resting place for thousands of game and insectivorous birds. Wood ducks, canvasbacks, sheldrakes, hooded mergansers, and coots appeared in larger numbers; baldpates and redheads appeared to be holding their own but shoal-feeding ducks, mallards, green-winged teals, blue-winged teals, greater and lesser scaups, ruddy ducks and buffle-heads were not so plentiful as in the previous season. Canada geese seldom visit the park waters and while swans pass over during migrations, they rarely descend. Great blue herons were seen in fair numbers, one of them appearing as late as December 15 at which time the park waters were frozen over.

Permits were issued to 226 sportsmen to shoot ducks in park waters under the regulations during the open season.

The permission granted by the department to residents of Point Pelee to take dead wood for firewood from the southern portion of the park was much appreciated and fourteen permits were issued.

The St. Lawrence Island Parks

The Island parks of the St. Lawrence were crowded throughout the season with picnickers and campers. Companies both of Girl Guides and Boy Scouts camped for several weeks on the islands and a large number of permits were taken out by private parties. It is estimated that 40,000 made use of these parks during the season, the numbers indicating that these reservations meet a real need on the part of the public.

Fort Anne Park

This park is becoming one of the most popular places of attraction for tourists in the Maritime Provinces. This year not less than 12,000 persons visited the park of whom 6,288 registered and were shown through the museum. An additional room, the library, containing many interesting books and other objects, was opened in May, making seven rooms and two corridors of the administration building now open to visitors.

The town water was brought into the administration building, new and improved benches were placed about the grounds, and the powder magazines in the fort were put in a good state of repair.

The erection of the cairn and tablet in Lower Granville marking the site of the first stronghold of Port Royal was proceeded with early in the year, and the formal unveiling which took place later was most interesting and was largely attended.

Vidal's Point

In spite of a wet and unfavourable summer the season was successful and it is estimated that 12,000 people visited the Point and made use of its recreational facilities.

COLLECTION OF PHOTOGRAPHS OF ARCHITECTURAL TYPES

In continuation of work in connection with the preservation of sites, buildings and manufactures connected with the early settlement of Canada, the Branch was directed to undertake the collection of photographs of buildings and structures of historical and architectural interest throughout Canada with a view to forming a national architectural record of Canadian building from the earliest times. The idea is to preserve a record of types of noteworthy architecture and to make them known to the general public and to architects throughout the Dominion in the hope of developing and fostering a typically Canadian architecture. One set of these photographs is being forwarded to the Public Archives to form a permanent record, another will be filed in the Architectural Division of the National Parks Branch.

PRESERVATION OF INDIAN ART

In co-operation with the Department of Indian Affairs and the Victoria National Museum arrangements were made looking towards the preservation of the totem pole are of the Skeena river tribes at the Indian villages of Hagwelgeht, Kitwanga, Kispiax, and Gitsegeukla, where there are still a considerable number of poles, most of them in good condition, and many of a fine type. In view of the rapid disappearance of totem poles within recent years and the virtual death of the art among the present day Indians it was decided that steps should at once be taken to preserve, in so far as possible, the poles of this region.

CANADIAN TOWN PLANNING

The general town planning work throughout Canada, which comes under the administration of the Canadian National Parks Branch, has been carried on as in previous years and any advice and lectures asked for have been given as usual.

PROTECTION OF MIGRATORY BIRDS

During the fiscal year 1924-25 the regulations based on the Migratory Bird Treaty have, in general, been very well observed, and the need for bird protection has become more widely recognized throughout Canada. Some slight changes in the open seasons have been made in order to meet, as far as possible, the situations in the different provinces. Increases in some species of migratory birds have been apparent.

The organization for the enforcement of the Migratory Birds Convention Act throughout Canada and for increasing the spread of knowledge concerning this work has been kept at approximately the same strength. The officers have delivered many lectures and in other ways have been extending information concerning the value of birds and the need for their protection. In carrying on this work there has been the fullest co-operation with the provincial game departments. There are now 1,522 honorary game officers. This number includes all officers of the Royal Canadian Mounted Police.

The work of investigating bird conditions in the Canadian Labrador and protecting breeding birds in this important water-fowl area was carried out as usual. One of the officers engaged in this work instructed the residents in the method of gathering and cleaning eider-down by practical demonstration.

During the past fiscal year 106 offenders were prosecuted for breaches of the Migratory Birds Convention Act and fines were imposed amounting to \$1,965. Four cases were dismissed and in twenty-seven cases sentence was suspended. Several cases were brought under this act by provincial officers and the fines imposed are not included in the total given. It is the policy of the Branch to refrain from taking action in the police court for trivial offences when a word of caution might suffice, but where serious infractions occur the Department has no alternative but to prosecute.

Educational and Publicity.—The educational work undertaken embraced the forms of lectures, motion pictures, radio broadcasting, field instruction, and naturalists' excursions. Lectures on bird life, totalling 452, were given by members of the permanent staff. Lantern slides and other lecture material were furnished to responsible parties desiring them for lecture purposes. In all 2,297 slides were loaned in this connection. Motion picture films of bird life, including a six-reel picture on "Canadian Sea Fowl," were widely distributed and proved excellent educational and publicity media. During the winter and spring months information was disseminated by series of short, carefully prepared talks on Canadian birds, which were broadcast through local stations.

Boys' and girls' training camps were visited during the summer months and instruction, lectures, and excursions connected with wild life and nature study were undertaken. School essay and bird-house competitions were also conducted. In these the publication "The Conservation of Wild Life in Canada" was given as a prize.

The total distribution of pamphlets of all kinds amounted to 118,844 copies. In addition to a number of new publications it was necessary to have reprints made of several leaflets on bird protection. There were also distributed 46,024 posters, 18,821 copies of acts, and 17,525 abstracts of the regulations pertaining to the Migratory Birds Convention Act.

The branch was represented at the meeting of the International Association of Game, Fish, and Conservation Commissioners, held at Quebec, and at the meeting of the American Ornithologists Union, held at Pittsburgh, U.S.A.

Permits and Licenses.—Authority to collect birds for scientific purposes was issued to 215 persons by the Branch during the fiscal year. In addition, 463 persons were authorized to capture migratory birds for domestication. Permits were issued to superintendents and overseers of several fish hatcheries giving them authority to kill certain birds when they were found causing serious damage to fishery interests. Permits were also issued to ninety responsible persons authorizing them to trap, band, and release migratory birds in co-operation with the efforts to obtain scientific data concerning distribution, breeding habits, and time of migratory flights of the birds. Records showing a total of 7,860 birds banded were received and 2,013 cases were reported of banded birds being again seen; eighty taxidermists' licenses were issued during the past year.

Licenses to the number of 159 were issued allowing the shooting of geese and brant in Queens and Shelburne counties, Nova Scotia, in the open season provided by law.

All persons holding "scientific permits" in western Ontario were asked to forward their observations concerning the corn borer situation in their respective districts. This information was given to the Entomological Branch, Department of Agriculture, Ottawa, to assist them in their investigations.

Sanctuaries.—Areas have been set aside at the following places as bird sanctuaries:—

Quebec.—Watshishow, Fog islands, Wolf bay, cape Whittle, St. Mary's islands, Mecattina, and St. Augustine. (These are all located along the north shore of the gulf of St. Lawrence.)

Saskatchewan.—Johnstone lake, Quill lakes, Lenore lake, Basin and Middle lakes, Chaplin lake, Crane lake, Bigstick lake, Cabri lake, Whitebear lake, and Manitou lake.

Alberta.—Red Deer, and Henderson park, Lethbridge.

Public Shooting Grounds.—With the idea of providing additional breeding areas for water-fowl and at the same time giving the public reasonable access to migratory game birds the following public shooting grounds have been set aside:—

Manitoba.—Netley lake, in the lake Winnipeg area; lake Francis, Clandeboyé bay, and Marshy point, lake Manitoba area; and Whitewater, Oak, and Plum lakes.

Saskatchewan.—Good Spirit lake, Ponass lake, Willow Bunch lake, lake of the Rivers, Twelve-mile lake, Goose lake, Kiyiu (Eagle) lake, Jack-fish and Murray lakes, lake of the Narrows, Muddy lake, Shallow lake and Cypress lake.

Alberta.—Grassy Island lake, Sounding lake, Gooseberry lake, Houcher lake, Baxter lake, Kirkpatrick lake, Dowling lake, Wavy lake, Whitford lake, Little Fish lake, Farrell lake, Shooting lake, Beaverhills lake, Wanisan lake, Joseph and Oliver lakes, Red Deer lake, Bittern lake, Hastings lake, Cooking lake, Samson lake, Big Hay lake, Goosequill lake, Manawan lake, Wizard lake, Gull lake, Sylvan lake, Lloyd lake, lac la Nonne, lake St. Anne, Majeau lake, Wabamun lake, and Isle lake.

Advisory Board on Wild Life Protection.—During the year this board held eleven meetings and many important items were discussed.

HISTORIC AND PRE-HISTORIC SITES

During the fiscal year very favourable progress was made in connection with the acquisition, preservation, restoration and marking of historic sites of national importance throughout Canada as recommended to the Department for action by the Historic Sites and Monuments Board of Canada, which acts in an honorary advisory capacity in connection with this work.

The present personnel of the board is as follows: Chairman, Brig. Gen. E. A. Cruikshanks, LL.D., F.R.S.C., Ottawa, Ont.; James H. Coyne, M.A., LL.D., F.R.S.C., St. Thomas, Ont.; J. Clarence Webster, B.A., M.D., (Edin.), etc., Shediac, N.B.; His Honour Judge F. W. Howay, LL.B., F.R.S.C., New Westminster, B.C.; J. B. Harkin, Commissioner of Canadian National Parks, Ottawa, Ont.; and Secretary, Arthur A. Pinard, Chief of the Historic Sites Division, Canadian National Parks Branch, Ottawa, Ont.

From the several hundred sites brought to the attention of the Department and which are increasing in number yearly, 141 have been recommended by the board, to date, for commemoration as of national importance. The control of 85 of these has been obtained by transfer, lease of occupation or deed of gift.

Forty-five local societies and organizations are co-operating with the Department in this national work.

Sites Marked

The historic sites named below were marked in a suitable manner during the year; tablets were placed on walls and pillars of buildings, and where necessary, cairns were erected on which bronze tablets bearing the inscriptions were placed; in most instances the unveiling ceremonies have been carried out:—

Halifax, N.S.—On the wall of the central lobby of the Province House, to commemorate the setting up of the first printing press in what was then British North America. On this press the *Halifax Gazette*, Canada's first newspaper, was printed March 23, 1752.

Halifax, N.S.—On one of the original pillars in H. M. Dockyard to mark the site of the first Royal dockyard in British North America, begun in 1759.

Lower Granville, N.S.—To mark the site of the first fort or "habitation" of Port Royal, built by the French under De Monts and Champlain, 1605.

Fort Charnisay, St. John, N.B.—In the City Hall Square to mark the site of Fort Charnisay, erected by Sieur D'Aulnay de Charnisay, Governor of Acadie, 1645.

Fort Crevier, near Notre Dame de Pierreville, P.Q.—To mark the site of this fort where engagements took place 1689-93.

Odelltown, P.Q.—To commemorate engagements which took place there in the rebellion of 1838.

Ernestown Shipyard, near Bath, Ont.—To commemorate the launching on September 7, 1816, of the *Frontenac*, the first steamboat to navigate lake Ontario.



Memorial erected on "Cliff Site," Port Dover, Ont.

Port Stanley, Ont.—To commemorate the several historic events associated with the locality.

Allanburg, Welland County, Ont.—To commemorate the turning of the first sod of the first Welland canal, November 30, 1824.

Fort Livingstone, near Pelly, Sask.—To mark the site of the first capital of the Northwest Territories, 1876-77.

Batoche, Sask.—To commemorate the events which took place there during the rebellion of 1885, and which resulted in its capture from the rebels by the troops under General Middleton.

Cut Knife Hill, Sask.—To commemorate the engagement, on May 2, during the Northwest Rebellion of 1885 between the troops under Colonel Otter and the band of Cree Indians led by Chief Poundmaker.

Battleford, Sask.—To commemorate the events which took place there, at the close of the Northwest Rebellion of 1885, when Chief Poundmaker and his band surrendered to General Middleton.

Frog Lake, Alberta.—A plot in which the victims of the Frog Lake massacre in the Rebellion of 1885, were buried was secured and suitably marked.

Fort Yale, B.C.—To mark the site of Fort Yale at the head of navigation on the Fraser river, built in 1848, and to commemorate the opening of the Cariboo wagon road, 1862.

Prince George, B.C.—To commemorate the journey of Sir Alexander MacKenzie, who passed this spot June 19, 1793, on his journey to the Pacific ocean. He was the first white man to cross the Canadian Rockies.

Prospect Point, Vancouver, B.C.—A cairn and tablet were erected in Stanley park to commemorate the events connected with the steamer *Beaver*, the pioneer steamship of the Pacific coast which was wrecked off Prospect point, July 26, 1888.

Langley, B.C.—To mark the site of Fort Langley, the first trading post on the Pacific coast of Canada, built in 1827 by the Hudson's Bay Company.

Friendly Cove, Nootka Sound, B.C.—To commemorate the events connected with Nootka Sound. Nootka Sound was discovered by Captain James Cook in 1778. The district passed into the possession of Spain in 1789 but was returned to Great Britain in 1792.

Preservation Work

Work to preserve historic buildings from further decay was carried out in a number of places, of which the following are the most important:—

Louisburg, Cape Breton.—Repairs made to the ruins of the old French light-house tower.

Fort Cumberland, N.B.—Stone steps constructed, magazine repaired, and two cannon mounted.

Fort Chambly, P.Q.—Repairs made to the roof of the dungeon and preservation work carried out on the walls of the fort. General improvement work was undertaken and a memorial erected in the centre of the cemetery.

Fort Lennox, Ile-aux-Noix, P.Q.—General repairs were carried out on the several massive stone buildings, including new floors, doors, windows and stonework, and additional equipment including a fire engine and extinguishers provided. Several specimens of rare interest were added to the museum. In order to furnish a dependable water supply, wells were sunk on the island. The fort was visited by over 6,000 people during the season.

Fort Wellington, Prescott, Ont.—Extensive repairs were carried out on the buildings located on this site. A museum was established in which were housed several relics of interest. Five thousand people visited the site during the season.

Sites Acquired

Sites which will be marked in due course have been acquired as follows:—

Maritime Provinces.—Four.

Quebec.—Six.

Ontario.—Four.

Western Canada.—Five.

REVENUE

Revenue collected, by the Canadian National Parks Branch, for the fiscal year ended March 31, 1925, shows an increase of \$64,379.93 as compared with the previous year. The statement which follows shows the net increases and decreases in the different parks:—

Park or other source	1924-25	1923-24	Net	
			Increase	Decrease
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Rocky Mountains.....	103,823 37	66,756 06	37,067 31	
Jasper.....	9,263 23	6,266 43	2,996 80	
Buffalo.....	51,139 91	30,747 24	20,392 67	
Antelope.....	192 00	28 00	164 00	
Glacier.....	395 00	390 18	4 82	
Waterton Lakes.....	4,119 82	4,491 48		371 66
Fort Anne.....	35 00	35 00		
Yoho.....	2,377 78	2,377 33	0 45	
Kootenay.....	4,989 13	3,832 20	1,156 93	
Point Pelee.....	382 00	28 00	354 00	
Brereton Lakes.....	25 00	20 00	5 00	
Elk Island.....	110 25	74 50	35 75	
Vidal's Point.....	38 00	18 00	20 00	
Fort Edward.....		25 00		25 00
Historic Sites.....	51 00		51 00	
Fines and forfeitures.....	2,522 86		2,522 86	
Migratory Birds.....	79 00		79 00	
Miscellaneous.....		74 00		74 00
Totals.....	179,543 35	115,163 42	64,850 59	470 66

Net increase for all parks \$64,379.93.

The Alpine Club of Canada

THE BANFF CLUB HOUSE

(Report Prepared by the Secretary)

Owing to the fact that most of the members travelling to the Annual Camp at Mount Robson did not pass through Banff, the attendance at the Club House was not as large as usual. A very rainy August also helped to keep people away.

A Government inquiry office has been established near the museum, but a great many visitors still come to the Club House for information about the mountain country. Many motor parties drove up to the Club House to enjoy the magnificent view which is not visible from the road. Calls are frequently made by members of other mountaineering clubs, who are always welcome. Very few bears visited the Club House and no damage was done by those pets of the tourist and enemies of the housekeeper and camper.

Mount Norquay was the most popular climb in the neighbourhood.

During the season several expeditions of interest and importance were made by club members.

In June Mr. A. Carpe and a friend explored the Cariboo mountains. Some years ago Dr. Gilmour and the late Professor Holway travelled in the same region and an account of their trip appeared in the *Canadian Alpine Journal*. Mr. Carpe and Professor Chamberlain climbed nine peaks in about two weeks, including the highest summit of the range, some 11,900 feet. Mr. Carpe says: "I think the scenic grandeur of the range has been, if anything, understated in Professor Holway's account. It certainly far surpasses anything I have seen either in the Selkirks or Switzerland, and Professor Chamberlain, my companion, says it is the finest glaciation he has seen outside of Alaska." Mr.

Carpe comments on the difficult nature of the country: "a hard, back-packing proposition with very long climbs; and might be very discouraging in bad weather." Dr. J. M. Therington, Mr. Ostheimer and Dr. Strumia, together with Conrad Kain, travelled among the mountains of the Whirlpool. They made the first ascent of mount Kane and found the view to the west a chaos of unnamed and unknown peaks. They also made the first ascents of mount Oates and mount Hooker, under trying conditions. They journeyed into Ton-



Climbers on tongue of Illecillewaet Glacier; Mt. Sir Donald in rear, Glacier

quin valley and made the first ascent of Simon peak, traversing also McDonell peak. Messrs. Sibbald, Gambs, Sampson and McGeary took a trip through the Mount Bess and Jackpine pass country. Several climbs were made. Dr. J. W. A. Hickson and Mr. Howard Palmer with Conrad Kain journeyed into the region of the upper Athabaska, but the weather was very bad and nothing of really serious importance could be attempted. Messrs. Coolidge, Higginson

and Johnson had rain for fourteen out of eighteen days in the Tonquin Valley neighbourhood. Under the guidance of Alf. Streich of the Canadian National Railways, they succeeded in making five ascents, including mount Edith Cavell, by a new route.

The Alpine Club House at Banff was open to visitors from June 23 to September 9, 1924; one hundred and twenty-six visitors registered, from the following countries:—

Canada—British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia. *England*—London. *New Zealand*—Wellington. *Hong Kong*—Victoria. *United States*—California, Delaware, Illinois, Iowa, Massachusetts, Minnesota, North Carolina, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island. *West Indies*—Porto Rico.

MOUNT ROBSON CAMP, 1924

(Report Prepared by the Secretary)

The nineteenth annual camp of the Alpine Club of Canada was held at the foot of mount Robson from July 22 to August 4. The situation is one of the grandest of the camps the club has held.

A new and easy trail has been made on the right bank of the stream issuing from Kinney lake. It cuts out a very steep hill.

At the far end of Kinney lake a camp was pitched where those who did not care to make the whole 19 miles from rail to mount Robson in one day could rest for the night. Far different from 1913, the shingle flats above the lake were almost dry and, where branches of the stream intersected, log bridges had been built. The valley of the Thousand Falls, the White falls, and the Emperor falls were attractive in their different ways.

The glaciers have retreated greatly in the last eleven years and no water flows now from the Robson glacier to lake Adolphus, hence mount Robson is entirely in British Columbia.

A subsidiary camp was placed in Moose pass, beautifully situated and surrounded by gardens of mountain flowers. From here mounts Calumet and Swoda were climbed. While affording no real difficulty, superb views were obtained.

This camp was reached by two routes: by the trail down the Smoky river or by a fascinating trip through the Snowbird pass, down the Coleman glacier to Calumet creek, and so to the camp. One large party travelling by the latter route was caught in the mountain mists and had to stay out all night to the great delight of the travellers who thirsted for adventure. The night was warm, fuel was plentiful, but two or three cakês of chocolate scarcely appeased the appetite of hungry mountaineers and breakfast was enjoyed when camp was reached.

The ascent of mount Robson was naturally the main interest of the camp. From camp the trail was taken to Kinney lake, thence a stiff ascent to a high camp placed at the timber-line, where the night was spent, the climb starting at an early hour. During the life of camp the mountain was climbed by fifteen members under the guidance of our old friend Conrad Kain, with occasional assistance from the other guides. Mrs. W. A. D. Munday, a Canadian member, and Miss A. E. Buck from the United States, were the first ladies to set foot on the summit of mount Robson. The day after camp was closed, six members made the ascent.

Mounts Lynx, Resplendent, Calumet, Swoda, Gendarme, Mumm, Rear-guard, and Ptarmigan peak were all climbed, many several times and under varying conditions. Owing to the predominant charm of mount Robson, the attack on mount Whitehorn was delayed to the latter end of camp, and then the weather broke.

Apart from the climbing, one of the most interesting events was the unveiling of a special monument to commemorate the completion of the survey delimiting the boundary between Alberta and British Columbia. This was erected on the shingle flats between Berg lake and lake Adolphus, a few hundred yards north of the club camp. It is a cement obelisk with brass plates stating the object of the monument and the names of the surveyors who carried to completion this arduous and difficult work. It also commemorates the late Dr. E. G. Deville, for forty years Surveyor General of Canada and honorary member of the Alpine Club of Canada since its inception. While the resultant maps were designed to define the boundary they open up to the world at large magnificent mountain areas. They have led to a very great increase in the tourist traffic of the country and are sought for the world over.

The Swiss guides whose services were kindly lent by the Canadian National Railways were Alfred Streich and Hans Kohler, who gave excellent service. They were assisted by J. Jaeggi and J. Saladana.

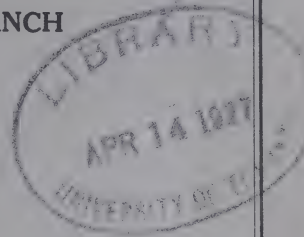
There were 179 placed under canvas, among them representatives of the Alpine Club, England; the American, French, and Swiss Alpine Clubs; the Scottish Mountaineering Club; the B.C. Mountaineering Club; the Appalachian Mountain Club; the Cascadians; the Sierra Club; and the Royal Geographical Society.

Members present were drawn from the following countries:—

Canada—British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec. *England*—London. *Switzerland*. *New Zealand*—Wellington. *United States*—California, Connecticut, District of Columbia, Delaware, Illinois, Iowa, Kansas, Minnesota, Missouri, Massachusetts, North Carolina, New Jersey, New York, Pennsylvania, Washington.

DEPARTMENT OF THE INTERIOR, CANADA
HON. CHARLES STEWART, Minister W. W. CORY, Deputy Minister

CANADIAN NATIONAL PARKS BRANCH
J. B. HARKIN, Commissioner



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Annual REPORT
OF THE COMMISSIONER OF
CANADIAN NATIONAL
PARKS

FOR THE YEAR ENDING MARCH 31

1925/1926

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1927



Moraine Lake, in the Valley of the Ten Peaks, Rocky Mountains National Park.

DEPARTMENT OF THE INTERIOR, CANADA
HON. CHARLES STEWART, Minister W. W. CORY, Deputy Minister

CANADIAN NATIONAL PARKS BRANCH
J. B. HARKIN, Commissioner

REPORT OF THE COMMISSIONER OF CANADIAN NATIONAL PARKS

FOR THE YEAR ENDING MARCH 31

1926

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1927

CANADIAN NATIONAL PARKS

REPORT OF THE COMMISSIONER, J. B. HARKIN

Developments in connection with National parks during the past year emphasized the fact that the parks are assuming a more important place among our national possessions and are rendering a larger service to the Dominion both sociologically and economically. Their reputation is not only steadily increasing abroad but Canadians themselves are more and more coming to appreciate, and to take pride in, these magnificent public reservations as well as to avail themselves of the opportunities for rest and recuperation which they offer. As knowledge of the National parks themselves and the aims behind their establishment grows the world over, recognition of the value and importance of such reservations in the preservation of wild life and original conditions generally, will increase and build up a strong national park sentiment. Those more intimately associated with the work see, each year, wider opportunities of service, and possibilities of development undreamed of a few years ago. The automobile has brought about a wider and more democratic use of the parks. The preservation of the wilderness spirit, of untouched and unspoiled conditions generally, is not easy but it is of first importance, a fundamental necessity to which all other considerations are subordinated.

The work of fire and game protection, the building and maintenance of modern motor highways, the operation of townsites, the provision of campsites, trails and recreational facilities generally involve increasing thought and labour but in all these matters a steady improvement is noticeable and a high standard is being maintained. At present there are only two of the National parks, Glacier park, B.C., and Jasper park, Alta., which have not been made accessible to motor travel from the outside. The position of Glacier park is isolated. It lies at the summit of the Selkirks and the building of a through highway to the park would be a difficult and expensive undertaking.

The opening up of Jasper park to motor travel from the outside will be only a question of time. The Government of Alberta has already projected and partly constructed a highway from Edmonton to the foot-hills which will enter the park by way of the Athabaska valley. To meet the needs of the thousands who will undoubtedly wish to continue their journey to Jasper the Department has constructed a highway from Jasper townsite each towards the park boundary. The road follows the ancient Athabaska trail of the fur traders and affords magnificent views of the eastern ranges and of the peaks flanking the Athabaska.

Tourist Travel.—Increase in tourist travel during the year was general in practically all of the parks, a record total of 333,397 being reached or 61,401 more visitors than in the preceding year of 1924-25. The figures according to parks are as follows:—

Antelope (Nemiskam) park.....	71
Buffalo park.....	8,500
Elk Island park.....	7,610
Fort Anne park.....	14,000
Glacier park.....	3,956
Jasper park.....	15,765
Kootenay park.....	46,340
Point Pelee park.....	45,800
Revelstoke park.....	11,320
Rocky Mountains park.....	124,749
St. Lawrence Island parks.....	40,000
Waterton Lakes park.....	9,041
Yoho park.....	6,245

Total.....	333,397
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Rocky Mountains park again had the highest figures for tourist traffic. The fact that this park is connected with the outside world by motorways from both east and west is the main reason for the great influx of visitors. Nearly half of the visitors to Rocky Mountains park were motorists. A total of 18,882 cars carrying approximately 50,000 persons was checked in through the eastern entrance of Kananaskis and the western gateway at Radium Hot Springs in Kootenay park.

The Canadian travel to this park was also much higher than to any other, about 56 per cent of the total visitors being Canadians. Thirty-eight per cent were from the United States, and 6 per cent were of trans-oceanic domicile. The popularity of the Mount Rundle motor camp at Banff, which is one of the best equipped in Western Canada, continues to increase. Approximately 15,000



Lake Louise-Field motor road in Kicking Horse Canyon west of Wapta, Yoho National Park.

campers registered during the season and the number of permits issued has increased from 73 in 1917 to 3,439 in 1925.

The establishment of bungalow camps, rest camps, tea houses and motor campsites has done much to encourage tourist travel by meeting the needs of the increasing number who prefer a comparatively simple form of accommodation.

An important development of the year was the completion of the Lake Louise-Field highway, the eastern section of the proposed Kicking Horse Trail. This road crosses the Divide by the famous Kicking Horse pass and opens Yoho park to motor travel from the outside for the first time. It accordingly offers an extremely interesting extension for motor visitors to Banff and Lake Louise and adds to the districts already within their reach, the spectacular Yoho valley with its Takakkaw falls, as well as beautiful Emerald lake. The new road will also be a boon to permanent residents in Yoho park, since it will give them access to outside points on the east.

The Highway Engineering division of the parks has also been at work on a further extension from Field west which the coming year will see completed to the west boundary of Yoho park. There the road will link up with the new provincial highway, from Golden east to the park boundary, now under construction by the province of British Columbia. Golden is already accessible from Windermere, the terminus of the Banff-Windermere highway, by a road along the east side of the Columbia valley, and with the completion of the new link connecting Field and Golden, there will be opened to the motorist another great scenic loop, with the Banff-Windermere highway as its southern arm. The northern arm—from Castle to Golden—will be known as the "Kicking Horse Trail." Together these highways will make available a trip of over 275 miles through one of the richest scenic regions in the Rockies.



Banff-Lake Louise motor road near Lake Louise, Mount Temple on left, Rocky Mountains National Park.

The region to the immediate south of Jasper park, where the Canadian Rockies reach their culmination in the Great Columbia icefield, is each year attracting more attention. The organized annual Steel-to-Steel trail trip, from Jasper on the Canadian National railway south to Field on the Canadian Pacific and return, which passes through the Columbia icefield region and along the backbone of the continent, has been taken advantage of by a considerable number of mountain lovers, who have welcomed the opportunity it affords of exploring a region of supreme interest hitherto extremely difficult of access.

In response to popular demand the name of Ghost glacier on mount Edith Cavell, in Jasper park, was changed to the more appropriate "Angel" glacier. The first annual memorial service was conducted at the base of the mountain on August 9, by the Rev. H. A. Edwards, of Jasper.

As usual Jasper was the centre of a good deal of climbing activity and several parties outfitted for attempts on unclimbed peaks. Mount Alberta (11,874 feet), to the immediate south of the park, was successfully scaled by a party of Japanese climbers.

The Alpine Club of Canada continued its valuable support and encouragement of mountain climbing and through its annual meet enabled many amateurs to gain experience of the Canadian peaks at moderate expense. Last year's meet was held at lake O'Hara in Yoho park and arrangements were made to hold the 1926 meeting in the Tonquin valley, Jasper park.

Yoho park was also chosen for the "Annual Ride and Pow-Wow" of the Trail Riders of the Canadian Rockies. Although only in its second year, this organization is already a highly flourishing one, numbering several hundred members, including distinguished writers, artists, climbers, and explorers. Last year's ride began at Marble canyon on the Banff-Windermere highway, Kootenay park, and followed the new trail over Wolverine pass to the Goodsir plateau, thence to lake O'Hara, where the Alpine Club camp was visited, and then on to lake Wapta where the pow-wow was held. One hundred and four members took part in the ride. An interesting feature of the pow-wow was the arrival of the Steel-to-Steel trail party which had just completed its 200-mile three weeks' trip from Jasper to Field.

In Kootenay park exploration work was begun on the laying out of a trail system, which will not only facilitate the work of fire and game protection but will open up further this little-known region to those who prefer to travel by pony-back.

Work was continued in Waterton Lakes park on the construction of the Akamina highway which will provide another crossing of the Great Divide and eventually form part of another through route from the prairies to the coast. This park has developed rapidly within the past few years and is justly assuming each season a more important place among the National parks.

Last year's season in Jasper park was most successful. Despite enlarged hotel accommodation, the Lodge was taxed to capacity on many occasions and further extensions are planned by the Canadian National Railway management to meet the increasing demand. The travel to this park shows a very heavy percentage of visitors from the United States and trans-oceanic countries. Almost forty-two per cent of the travel was from the United States, fifty-three per cent from Canada, and nearly five per cent from abroad.

The opening of the eighteen-hole golf course, recently constructed by the Canadian National Railway management at Jasper, the location of which is considered to be one of the finest on the continent, is expected to be a great incentive to tourist traffic. Arrangements are being made to have the Canadian open championship held on the course in 1927.

Their Excellencies, the Governor General Lord and Lady Byng of Vimy, visited the western parks in the course of their tour in the summer. Sir Douglas Haig and party also visited Jasper park and enjoyed a game of golf over the links there.

The establishment of motor connection with the outside world through the Okanagan valley has been a boon to Revelstoke park and a vigorous publicity campaign conducted by the local municipal organizations has been instrumental in promoting the popularity of the district.

PUBLICITY

The increase in publicity work has been proportional to the growth in tourist travel. The travelling public is rapidly coming to realize the recreational opportunities offered by the National parks and the demands for literature and general information in connection with the parks and historic sites grows greater each year. This has necessitated the reprinting of a number of pamphlets, the supply of which was exhausted.

"The Banff-Windermere Highway" pamphlet was reprinted to the number of 25,000; "Through the Heart of the Rockies and Selkirks," to the extent of

10,000; and a revision and reprint was made of the "Livery and Automobile Tariffs" for the various parks.

A small pamphlet on the conservation of the buffalo was printed under the title of "Bringing Back the Buffalo," while a booklet entitled "Canada" was prepared for distribution at the New Zealand exhibition, 27,000 copies being printed.

French and English reprints of the Guides to Fort Lennox and Fort Chambly were issued to the number of 19,000, while a new Historic Site publication was edited and printed. This pamphlet, "Sir Alexander MacKenzie's Rock," deals with the completion of the noted explorer's first overland journey to the Pacific ocean.



Entrance road to Waterton townsite, Waterton Lakes National Park.

The Director of Publicity again attended the British Empire Exhibition at Wembley and continued the effective publicity work which he had carried on the previous year. Forty-eight lectures were delivered, and 123,555 publications distributed in England, while the loan of lecture notes, lantern slides and motion picture films, together with the release of prepared articles assisted in making known the opportunities that Canada has to offer in the way of tourist holidaying and permanent settlement.

Publications distributed from head office during the year totalled 209,627. Photographs of park scenery to the number of 4,200 were distributed in addition to 300 enlarged pictures. Sixteen sets of lecture notes and lantern slides were loaned in Great Britain and were used by 113 different organizations. Seventy similar sets were loaned for use in Canada.

Two hundred and forty-two articles were prepared on the National parks, animal and plant life, highway construction and other topics connected with the work and these appeared in newspapers and magazines in Canada. United

States, Great Britain, Australia, New Zealand, France, Italy, Holland, Germany, Russia, India and Japan.

A total of 254 motion picture films was loaned during the year: 210 in Canada, 28 in United States, 4 in England, 7 in New Zealand, 2 in Italy, 1 in Norway, and 2 in South America. Lectures delivered by the official lecturer number 185 and approximately 50,000 persons were reached in this manner. The cities of Rochester, New York, and Brooklyn, N.Y.; Philadelphia, McKeesport, and Pittsburgh, Pa.; Newark, N.J.; Providence and Pawtucket, R.I.; Boston, Mass., and Baltimore, Md., were visited during the course of itineraries carried out in the United States. Assistance was rendered to various organizations, individual journalists and publicity bureaus in the compilation of information and statistics.

Prepared exhibits were displayed at the Central Canada Exhibition at Ottawa and the Canadian National Exhibition at Toronto. At Ottawa a motion picture display was organized in conjunction with the still exhibit. At both exhibitions displays of buffalo products were shown while material was loaned for a few smaller exhibitions held under responsible organizations.

TIMBER PROTECTION DIVISION

The very dry spring and summer of 1925 in Western Canada was the cause of many serious fires in the mountain parks. These were of a greater extent than in any year since the parks were established, and only the prompt and determined use of the present extensive protective forces and equipment prevented much greater losses.

Valuable assistance was rendered by officers of the Forest Service in the case of the dangerous Panther River fire in Rocky Mountains park, where both men and equipment were freely loaned.

Fires in Canadian National Parks, 1925-26:—

Timber burned	30,464 $\frac{1}{4}$	acres
Grass burned	89 $\frac{1}{2}$	"
Young reproduction burned	8,808	"
Cost of extinguishing	\$ 25,827 86	
Number of fires	111	

*Improvements.—*The following new work was completed:—

Trails.—Eight and one-quarter miles at a cost of \$384.

Telephone lines.—Eighteen and three-quarters miles new construction at a cost of \$3,016.04. Seventeen and three-quarters miles rebuilt at a cost of \$1,819.18.

Cabins.—Four which cost \$3,463.89. An addition to a cabin at Elk Island park was made at a cost of \$597.05.

In addition, heavy maintenance work was done to keep the trails and telephone lines already constructed in as good condition as possible, the wardens being assisted where necessary by small extra gangs.

Experiments conducted in the use of the standard portable forest fire engines resulted in multiple streams of water being utilized, as many as eight streams having been secured from one engine. This increases the value of the engines as it permits the control of a much larger area than can be covered by the use of a single stream of water.

Trials were conducted with a very small fire engine, under fifty pounds in weight, and it is proposed to add a number of these to the present supply of equipment. Their light weight is an important item where transportation is necessary over a considerable distance or to higher altitudes.

CANADIAN NATIONAL PARKS

TOWN PLANNING AND ARCHITECTURAL DIVISION

An increased number of plans of privately owned buildings proposed to be erected within the parks has been received for examination. To about eighty-five per cent of these revisions in elevations were made in order to improve their appearance. Drawings showing suggestions for such revision, which would add as little as possible to the cost, were in all cases prepared.

Designs, including working drawings, were prepared for a group of three buildings for the Royal Canadian Mounted Police detachment at Jasper and for a new entrance gate-house for Rocky Mountains park at Kananaskis, Alta.



Mount Erebus, Jasper National Park.

Detailed drawings were prepared for making the necessary furniture for the visitors' rest room at the entrance gateway to Kootenay park, at Radium Hot Springs.

Plans of an extension to the Mount Rundle automobile camping grounds near Banff were prepared.

A national collection of photographs of Canadian buildings and structures of historical and architectural interest, which was initiated by the Prime Minister and which it is proposed to place in the Public Archives, has been undertaken by this division. Considerable progress was made during the year with the collection. A photographic survey, by automobile, covering a route 2,254

miles long throughout southern Ontario, was arranged and carried out with very satisfactory results. During this survey 400 photographs of selected buildings, typical of various styles and periods of architecture, were taken. A large number of photographs from other sources has also been collected, titled and tabulated and information has also been gained relative to the procuring of other material for this collection.

Much assistance has been given to the Town Planning Institute of Canada in connection with their journal entitled *Town Planning*. Many articles have been contributed to other journals on town planning subjects, and a considerable body of correspondence has been conducted with inquiries throughout the Dominion. Lectures have been delivered at McGill University by a member of the staff and the lantern slide service has been maintained as in past years.



Antelope in Nemiskam National Park.

WILD LIFE PRESERVATION

Encouraging reports have been received in connection with the efforts that are being made towards wild life preservation. The increase in the buffalo herd in Buffalo National park is an example of the success that has attended operations in this direction.

The Antelope reserve, Nemiskam National park, is another outstanding example of this work. Slightly more than forty animals were in the original herd in this sanctuary and their numbers have now increased to 309.

Reports received from the warden service in every park indicate that game is on the increase. Bear, deer, moose, sheep, goat, elk, beaver, marten, fisher, and mink are some of the species among which outstanding increases have been noted, while caribou are also making favourable progress.

As the protection is extended the animals continue to grow more trustful and their appearance in close proximity to the inhabited areas of the parks is a source of wonder and delight to visitors.

A total of ninety animals, comprising buffalo, elk, Rocky Mountain sheep, Rocky Mountain goat, Angora goat, black bear, mule deer, beaver, and pika were shipped from National parks to zoological gardens, city parks, etc., throughout the world, as follows: Austria, France, South Africa, Belgium, New Zealand, Scotland, Missouri, Washington, Nebraska, California, District of Columbia, Texas, Quebec, Ontario, Saskatchewan, and Alberta.

Fish.—The general measures annually carried out in restocking parks' waters were continued. Fry were placed in the waters of Jasper, Rocky Mountains, and Waterton Lakes parks; salmon trout, Loch Leven trout, eastern brook trout, cut-throat trout and rainbow trout being the species in greatest numbers. The source of this supply was chiefly from the Banff hatchery, while a shipment was received at Waterton Lakes from the United States Glacier National park.

Farming Operations.—Approximately 500 acres were under crop in Buffalo National park, the harvest yielding 15,000 bushels of oats, 290 tons of straw, 1,175 tons of hay and 25 tons of green feed. There were 8,900 bushels of oats surplus to the requirements of Buffalo park, which were distributed among Jasper, Rocky Mountains, and Elk Island parks. Three hundred and fifty tons of hay were harvested at Elk Island for the maintenance of the animals kept there.

DETAILS OF WORK IN INDIVIDUAL PARKS

A brief summary of the details in connection with the work carried on in the individual parks is given below.

Rocky Mountains Park

Tourist Traffic.—A marked feature of the year's work was the outstanding increase in tourist traffic. Since the opening of the Banff-Windermere highway motor travel to Rocky Mountains park has witnessed a steady, annual increase. Visitors to the park during 1925-26 numbered 124,749, an increase of 28,819 over the previous year. Over 15,000 persons camped in the park while 2,000 visitors were cottagers who remained for periods ranging from two weeks to four months. An analysis of the hotel registrations shows that over 27,000 people from the United States and more than 6,000 from trans-oceanic countries visited the park.

Government Baths.—The Cave and Basin bath house had a most successful season; 55,605 bathers passed through the turnstile, establishing a record for the fiscal year. This is an increase of 7,015 over 1924-25, the previous record year, and does not include a total of 1,860 free bathers. The installation of shower baths at the Cave and Basin was completed. Apart from the bathers, 44,241 visitors signed the register in the Cave. At the Upper Hot Springs there were no signs of diminution in the water supply and a normal flow was maintained throughout the year. A total of 31,329 bathers used these baths, representing an increase of 3,462 over the previous record year of 1920-21.

Motor Traffic.—The splendid condition in which park roads are maintained has doubtlessly been the cause of the remarkable increase in motor traffic. At the Kananaskis, or eastern gateway to the park, 24,529 motor cars passed through in both directions, carrying 98,023 persons. Of this number 13,155 cars were westbound, or entries, with 52,573 passengers. At the Radium Hot Springs gate, the western entrance to Kootenay park, 5,727 cars entered. Thus from east and west there were 18,882 entries. Ten thousand, two hundred and thirty-three transient auto permits were issued in Rocky Mountains park and 129 seasonal permits. An increase of 9,065 was recorded in the number of motor cars passing through the Kananaskis gateway in both directions, over the previous record year of 1924-25. During the month of August alone, 7,207 cars passed through the Kananaskis gateway in both directions. Registrations of people from the United States at this entrance totalled 3,083.

Camping.—The popularity of Rundle Mountain automobile camping ground continues to grow apace and the accommodation was so taxed in 1924-25 that additions were made last year, in the form of 66 lots with additional shelters and other facilities for visitors. The camping permits for this camp ground since 1917 are:—

1917.....	73	1922.....	509
1918.....	57	1923.....	1,693
1919.....	77	1924.....	2,388
1920.....	200	1925.....	3,439
1921.....	338		

The total number of permits issued for all camp sites within the park was 4,186. This number of automobiles carried 15,131 passengers, of whom 12,617 were Canadians, 2,495 from the United States, and 19 of transoceanic domicile.



Three Sisters, from Calgary-Banff motor road, Rocky Mountains National Park.

Golf.—The golf course had a very successful season, despite inclement weather in August, and the attendance exceeded that of previous years. The following tickets were issued for play: one-round tickets, 6,198; one-day tickets, 79; one-week tickets, 56; one-month tickets, 49; season tickets, 56. Eighteen holes are now in play and the course was commended by such well-known players as Jim Barnes and Jock Hutchinson, professionals; and Chick Evans and Keefe Carter, amateurs; who played exhibition games over it.

Government Townsite.—The usual maintenance work was conducted on streets and sidewalks in Banff. An experiment is now being carried out with Fort McMurray tar sands for paving purposes, and so far has proved successful. Work was commenced on the remodelling of the Banff electric lighting system. A number of the better houses in Bankhead, vacant because of the closing of the Bankhead mines, were moved to Banff, and as a result practically every available lot in that townsite is now taken up. Necessary decoration and alterations have been carried out on these buildings.

A volunteer fire brigade was organized in Canmore. Street lights have been installed and there are now 94 electric light connections in the town.

Dairy inspections and milk analysis were regularly carried out.

Roads.—Considerable maintenance work was carried out on all the various roads in the park. On the Banff-Kananaskis road $7\frac{1}{2}$ miles of surfacing was completed. In addition to slightly over 3 miles of surfacing, maintenance work was done on the road between Banff and Lake Louise, including patching the road, clearing ditches and work on culverts. The Lake Louise-Field road was completed, brought up to standard width of 16 feet, and will be open for traffic in the summer of 1926.

Mosquito Control.—Under the direction of Mr. Eric Hearle, of the Entomological Branch of the Department of Agriculture, excellent work was again



Emerald Lake, Yoho National Park.

accomplished in the elimination of mosquitoes. Three sprayings of oil were applied to those areas where larvæ were found, the third application being made necessary as a result of wet weather which occurred soon after the second spraying.

Fish.—During the year the following fry were distributed from the hatchery at Banff in different waters with a view to restocking: Loch Leven trout, 474,350; rainbow trout, 365,000; salmon trout, 164,000; cut-throat trout, 154,480; while 291,273 cut-throat trout were distributed from the Spray Lakes hatchery.

Sports.—The thirty-sixth annual Indian Day sports were held from July 22 to July 25, and much interest was aroused among visitors in the various events. Four or five hundred Indians took part in the daily parades through the Banff streets to the Banff Springs hotel, this number surpassing the Indian attendance of any other year. The Winter Carnival of 1925 was the most successful in the history of this annual event, due, in part, to the support given to the local committee by the city of Calgary, and, in part, to the fine weather conditions pre-

vailing. Many visitors were attracted by the carnival and excellent sport was witnessed. The annual Bonspiel of the Banff Curling Club was held from February 8 to 13 inclusive. Despite a short spell of mild weather in the middle of the Bonspiel, the various competitions were well contested. In addition to the Banff rinks, 15 rinks were entered from outside points.

Museum.—During the year 15,985 persons signed the register in the Government Museum at Banff. The above number does not show the total number of visitors to the museum since a large number do not sign the register.

Permits.—Twenty-five permits were issued for buildings of a total estimated value of \$250,300. Twenty-eight permits were issued for the cutting of merchantable dead timber and sixty resident permits to cut dry wood. Fifty-one grazing permits were also issued covering the grazing of 242 head of horses and 277 head of cattle.

Fires.—There were nineteen general fires in the park, burning over an area of 691 acres and costing \$816.11 to extinguish. Fifteen of these were attributed to campers, one to lightning, two to smokers, and one to other causes. Ten railway fires were recorded, but they burned over only two acres and cost but \$29.16 to extinguish; three of these were attributed to unknown causes, one to lightning, one to smokers, and five to other causes.

Game.—Deer are a common sight on the streets of the townsites. Elks are increasing rapidly and appearing in new localities each year. Moose are increasing while Rocky Mountain sheep can be seen in several places along the motor highways. Rocky Mountain goat usually range back from civilization, though one band is frequently seen along the motor highway near Sawback.

Kootenay Park

Motor Traffic.—A considerable increase was recorded in the tourist traffic through Kootenay park during the 1925-26 season. The number of cars and passengers passing through the Radium Hot Springs, or western gateway was 11,778 and 46,340 respectively. The following figures show the number of cars passing through the park for each of the last three years and indicate the increasing popularity of the Banff-Windermere highway since its opening: 1923, 4,621; 1924, 7,048; 1925, 11,778.

Baths.—The increasing popularity of the Radium Hot Springs pool is shown by the following numbers of bathers: 1923-24, 5,783; 1924-25, 7,000; 1925-26, 9,765.

Roads.—The Banff-Windermere highway was opened for traffic on May 31 and was in perfect condition until its close on November 22. The growing popularity of this wonderful scenic highway is shown by the table of automobile traffic.

Game.—There has been a decided increase in the number of game animals within the park, especially with respect to moose, elk, deer, sheep, and bear. Rocky Mountain sheep in the vicinity of Radium Hot Springs particularly show a marked increase.

Fires.—Ten forest fires occurred during the year; two caused by campers, four by lightning and four by smokers. An area of 52 acres was burned over, costing \$1,801.79 to extinguish.

Campsites.—The Radium Hot Springs campsite has been enlarged to three times its former size to accommodate the growing tourist traffic. Maintenance and renovation work was carried out at the various other camps within the park and a total of fourteen camp shelters was erected on the sites.

Yoho Park

Roads.—Construction was carried on of the new motor highway from Field west to connect with the motor road built by the Provincial Government of British Columbia from Golden east and excellent progress was made. The entire right of way was cleared, grubbed, and burned, and approximately five miles of grading was completed. A new truss bridge over the Kicking Horse river about a mile below the Natural Bridge consisting of two 65-foot spans was completed on this highway.

The work of widening the Yoho road was continued. This thoroughfare, originally constructed for horse traffic, is being gradually remodelled into a modern motor way. The "Switchback" has been widened by work which



Maligne Lake and Mount Charlton, Jasper National Park.

entailed the construction of a large amount of log cribbing, and is now perfectly safe for motors. Three small bridges on this road were replaced by heavier structures and a new single-span bridge of the arched-truss type, 100 feet in length, was built over the second crossing of the Kicking Horse river, at the four-mile post. Maintenance and improvement work was also carried out on the Emerald Lake road and two bad corners were eliminated.

On the Hector road a large amount of work was done, the old railway grade from Hector down to the old Monarch mine being widened out to the standard width and surfaced, and a new piece of highway to connect the old grade with the Yoho road in the valley below was constructed to replace the temporary roadway which had hitherto been used. The latter, on account of its steep grades—some of which reached 18 per cent—was not feasible for inclusion in a main highway. By the autumn, the entire new highway from Lake Louise to Field was completed and will be open for traffic in the summer of 1926. This road makes Field and Yoho park accessible by motor car to the Prairie Provinces and is expected to draw many thousands of tourists into Yoho park.

Trails.—Extensive maintenance and repair work was carried out on the various trails in the park. A new trail was constructed from the Lake O'Hara trail into the campsite of the Alpine Club at the southwest end of the lake.

Construction and Maintenance.—Improvements were made to several buildings in the park, both in Field and at other points where cabins are located. A rock wing dam, 10 feet in width and 500 feet in length, was built on the Kicking Horse river for the protection of the Yoho road at the Three Mile flats, thus ensuring the road remaining undamaged by the water. An exchange of land was effected with the Canadian Pacific Railway system whereby thirty-six additional lots were secured for the townsite at Field. Some of the lots were occupied, and the remainder were thrown open for entry.



The Committee's Punch Bowl, Jasper National Park.

Motor Camp.—With the influx of tourists over the motor highways, motor camps will be a necessity in the park and steps have already been taken to establish a camping ground. The site chosen for the camp was near the point where the old Hector road joins the Yoho road, approximately four miles east of Field. About two acres have been cleared, two shelters built and as soon as practicable water will be piped to the camp site from a nearby spring.

Fires.—The season was a hazardous one from a fire standpoint, requiring the utmost vigilance from the warden staff. The only fire of serious proportions was that started on mount Hunter by lightning, when a total of ten acres was burned. The total fires numbered seven, five general and two railway. Of the former, one was started by campers, two by lightning, and two by smokers. The total area burned over was ten acres and the cost of extinguishing, \$298.40. A course of instruction for the warden staff was conducted, with lectures on various phases of fire prevention and the use of the parks' fire equipment.

Visitors.—The year saw an increase in the number of visitors to the park. The Trail Riders of the Canadian Rockies again held their annual pow-wow in the park, terminating a three-day ride at Wapta Lake camp. Approximately 100 riders made the trip from Kootenay park, via the Washmawapta snowfield, Goodsir creek, and lake O'Hara. Five hundred persons were present at the annual pow-wow. The Alpine Club of Canada and the British Columbia Mountaineering Club held their annual meetings at lake O'Hara. Considerable private development has taken in the park as a result of the increased tourist traffic. The capacity of the Emerald Lake chalet has been doubled, an attractive new tea room has been constructed near the Natural Bridge and others at the camps at lake O'Hara and Yoho.

Glacier Park

Roads.—The tremendous snowfall which takes place in Glacier park always necessitates extensive maintenance each spring on the park roads. The usual clearing was carried out, landslides causing considerable extra work. A new trestle bridge was built on the Caves road, and by the employment of an earth fill, the length was reduced to 52 feet as against 75 feet for the old bridge.

Fires.—Ten fires occurred within the park, two general ones being caused by lightning, while of the eight railway fires, two were attributed to unknown causes, four to smokers and two to other causes. An area of $2,091\frac{3}{4}$ acres was burned over and the cost of extinguishing was \$1,324.76. Only three of these fires reached any considerable size, one of which was a railway fire, and two others caused by lightning. The former burned through an old burn and the two latter were so high up that, from a scenic standpoint, the damage was negligible.

Game.—Game and fur-bearing animals in Glacier park continue to increase, especially the caribou and marten.

Nakimu Caves.—Continuing development work from the No. 4 tunnel entrance to the Nakimu caves, a total length of 842 feet of new cave, or underground water passage was made accessible, some of which is most interesting and spectacular. A survey of the caves is being considered, as it is believed explorations have now been carried to a point almost under the caretaker's cabin. If this proves to be true it would enable a circle tour to be made instead of having visitors retrace their journey to the entrance.

Revelstoke Park

Roads.—Road work within the park was hindered during the summer season by numerous forest fires, occasioned by the exceptionally dry season. Over one mile of new highway was completed, however, and a considerable distance of right of way cut and cleared beyond that portion which was finished. Mileage posts, also indicating the altitude, were placed along the road. The highway is now 16.8 miles in length. The elevation at which this work now takes place allows a working season of only about two and one-half months.

Fires.—Eight forest fires were reported within the park, all caused by lightning. They burned over an area of 8,801 acres and entailed a total extinguishing cost of \$9,409.58. Owing to the very dry spring and summer experienced throughout British Columbia, the forest floor was in a very inflammable condition. Electric storms, unaccompanied by rain, were frequent, and after one particularly severe storm, no less than seven fires were burning in the park at one time, all in widely separated locations. Some of the fires started outside the park boundaries but worked into the park area later. The nature

of the territory in which the outbreaks occurred made fire-fighting very difficult, but fortunately, owing to the prompt and efficient action of the warden staff, no serious damage to the scenic beauty resulted.

Sports.—The Annual Winter Carnival was held during the week of January 25 to 30, and competitions in curling, skating, hockey, ski-ing and other winter sports were carried on. The Interior Curling Association took this occasion to hold their Bonspiel and fourteen outside rinks and ten local rinks took part in the tourney. The Annual Ski Tournament was held on January 27 and 28, and as usual attracted competitors from all over the continent but no new records were established.

Game.—Bear and deer, particularly, are increasing in the park, while there seems to be a very plentiful supply of game birds.

Visitors.—Tourist traffic in Revelstoke park and the adjoining district showed a decided increase over the previous year. Hotel registrations were greater while two hundred more automobiles entered the park than in 1924-25.

Jasper Park

Visitors.—Hotel registrations show a total of 15,765 visitors to Jasper park for the year, representing an increase of 5,659 over 1924-25. The Jasper Park Lodge was filled throughout the season and several times even the enlarged accommodation was overtaxed.

Game.—An exceptionally mild and open fall, with practically no snow, was a boon to the game within the park, as it provided especially good feeding conditions. Wild life generally is increasing rapidly and all animals seen were in good condition. From the observations of the warden staff it is estimated that there are between 800 and 1,000 elk in the park. Herds numbering as many as 70 and 100 have been seen in the vicinity of Cabin creek. A very gratifying increase is noted in Rocky Mountain sheep. They are spreading their range annually and previously deserted ranges are again being frequented. An estimate places the number of sheep within the park at 10,000. While Rocky Mountain goat generally keep to the higher altitudes, they are constantly spreading out. There are at present believed to be well over 2,000 goats in the park and all, including the kids, are in good condition. Signs and tracks seen in the different areas indicate a considerable increase among the grizzly bear especially in the region of the Snake Indian, Rocky, and Smoky rivers and Rock lake. Black bear are also increasing and it is a common sight for tourists to see from ten to thirteen of these animals in the neighbourhood of Jasper at one time. A very conservative estimate places the total number of bear within the park at 2,000. Moose are at last coming into the park in large numbers. They have been seen in practically all areas, and are unusually tame. Eighteen hundred of these animals are believed to be within the park confines. Deer are leading all other animals in the matter of increase and the estimate of their numbers is placed at 10,000. They are very tame, pay practically no attention to pedestrians or motor cars, and are frequently seen grazing on the townsite. The increase in caribou is very gratifying. Numerous herds range along the northern boundary and at the Big Lick on Byng pass 75 to 100 can be seen at almost any time. There is also a large herd in the Tonquin valley. Their numbers within the park are placed at 1,000. Guides and hunters report that these animals are also very numerous north of the park boundary. Almost every lake and stream in the park contains beaver and they are increasing rapidly. Buffalo Prairie, at one time one of the finest grazing areas in the park, with a little stream running through it, is now a series of small lakes and dams which are occupied by hundreds of beaver. Especially good fishing is procured in

these beaver lakes. Marten are very numerous, while fisher and mink are also increasing. Keen vigilance is exercised to prevent trapping of these animals. Wolf, coyote and wolverine are being trapped. There have been no signs of cougar.

Fish.—Good catches were reported, generally, and the fishing was much better than in previous seasons. Restocking was carried out in a number of lakes and streams. Caledonia lake, opened after two close seasons, showed the results in an abundance of fish.

Fires.—There were twenty-eight railway fires of which twenty-seven were attributed to locomotives and one was of unknown origin. The total area burned was $24\frac{1}{2}$ acres and the cost of extinguishing was \$144.41. Much more serious



Golf Course, Waterton Lakes National Park.

damage resulted from the seventeen general fires which took place. Four of these were attributed to campers, five to smokers, one to lightning, four to other causes, and three were of unknown origin. The total area burned was 27.647 acres and the cost of extinguishing the fires was \$10,703.49. The greater parts of the area burned and of the costs incurred were due to two particularly bad fires, one on the Chaba-Athabaska area and the other at Medicine lake. The fire on the former was very hard to fight owing to the tremendous amount of *brulé* and the fact that at the point where the fire raged there was a very wide valley with the fire coming in from four other valleys to centre there. The fire at Medicine lake was controlled before it got really into the big timber at the north end of the lake.

Townsite.—The usual maintenance work was carried out in the townsite and a number of streets were widened, regraded and surfaced. Building permits were issued for the construction of buildings in the townsite at an estimated cost of \$301,575. Permits were granted for buildings outside the townsite valued at \$41,100, included in the latter being a \$30,000 swimming pool for

Jasper Park Lodge. Construction was commenced on the new scheme for a permanent water supply for Jasper townsite and the Canadian National Railway depot. A new concrete dam was erected and a reservoir made on Cabin creek at an elevation of about 217 feet above the town, thus ensuring a high pressure. One of the most important undertakings of the season was the construction of a distribution system of electric light and power, covering practically the whole of the developed parts of the townsite. The electricity is produced by the Canadian National Railway system and distributed to consumers by the Canadian National Parks' Service.

Golf Course.—The eighteen-hole golf course in connection with Jasper Park Lodge, which has been under construction by the Canadian National Railway management during the past two years, was practically completed.

Trails.—Trails were kept in excellent shape last year. The Medicine Lake-Jacques Lake trail and the Miette Hot Springs trail, both difficult trails to main-



Part of main herd, Buffalo National Park.

tain, were much improved and considerable work was done on the trail around Medicine lake and the Meadow Creek trail. A new trail of over one mile was constructed from the end of the present Cavell highway to the moraine of the Angel glacier on mount Edith Cavell. The Poboktan trail, via Maligne lake to the Brazeau, was in excellent condition throughout the year.

A new bridge of 200 feet span, requiring three pile piers and two timber cribs, was built over the Snake Indian river at Devona. Another bridge with a span of 29 feet was built over the Smoky river near No. 12 cabin, and trails were cut from the approaches to connect with the main trail. The trails on each side of Maligne canyon were continued and the one on the north bank carried down to the mouth of the gorge. A new scenic bridge erected across the lower falls of the canyon affords visitors an excellent view and connects the two trails.

Telephones.—A new telephone line was built from the warden's cabin at Drennan's mine to the old cabin at the west forks of the McLeod river, a distance of 13½ miles.

New construction was done on the line from Jasper to Devona. On the first 8 miles the existing line was restrung. From Snaring Junction to Rocky river the line was attached to the poles of the Canadian National Railway system and a new line built through the bush from Rocky river to Devona flats.

Memorial Service.—The first annual Edith Cavell memorial service was held at the foot of Angel glacier on August 9, 1925, and was attended by many visitors from Jasper. It is the intention to hold this service on the first Sunday in August each year.

Waterton Lakes Park

Visitors.—The summer was on the whole favourable for visitors, the weather being fine and the roads in good condition for motoring. The completion of a registration booth enabled much more accurate check being kept on the



Waterton Lake, Boundary Creek pass from above mouth of Hell Roaring Canyon, Waterton Lakes National Park.

tourist traffic. Nine thousand and forty-one visitors registered, of which number 8,737 were Canadians and 304 United States citizens; 24 States being represented in the latter registrations.

Townsite.—New streets were constructed and gravelled on the camp grounds and an experiment was carried out in oiling other sections of park roads. Several new cottages were erected on the townsite. One of the notable features of the year was the opening of a school.

Roads.—Work was proceeded with in the construction of the Akamina highway and general maintenance work was carried out on the Cardston and Pincher Creek roads.

Sports.—The tennis courts were improved by filling and the erection of higher netting, and were well patronized, as was the new bathhouse at Lake

Linnet, and the swimming pool. Several improvements were made to the golf course, and the links are now in excellent condition. Fishing, which is one of the principal sports in this park, was good and many good catches were reported. Restocking was carried out in Cameron lake, Lineham creek, Twin lakes and Waterton lakes.

Game.—From warden observation it is ascertained that game in general throughout the park is increasing. Rocky Mountain sheep, deer, bear, elk, beaver and mink are very plentiful; Rocky Mountain goat are in substantial numbers, as are coyote and lynx, but wolf are apparently less numerous than formerly.

Fires.—Two fires only occurred during the year, one was caused by smokers and the origin of the other was unknown. Forty acres were burned over, the cost of extinguishing being \$1,086.10.

Buffalo Park

Stock.—Early in the spring the work of rounding-up and segregating the buffalo to be shipped north to the Wood Buffalo park on Slave river was completed. On June 15 the first shipment went forward and this was followed by a shipment every week until a total of 1,634 animals had been transferred. The work of transferring these animals to their new range was carried out successfully and with very little loss. The natural increase in buffalo during the year was approximately 2,000 and the number now in the park is 8,305. In addition there are estimated to be 35 moose, 368 elk, 1,293 mule deer and 3 antelope in the park. Nineteen yak are kept in the visitor's paddock and the cattalo enclosure and in connection with the cross-breeding experiments, 15 domestic cattle and 29 animals of mixed breeds are at the cattalo enclosure. Considering the condition of the range and the fact that the herds are increasing rapidly, the animals came through the winter in good condition. The individual shipments during the year were as follows: 2 buffalo to Paris, France; 3 buffalo to Calgary, Alta.; 2 elk to Saskatoon, Sask.; and 1 mule deer to Toronto, Ont.

Cross-breeding Experiments.—Each year brings further and encouraging advances in connection with the buffalo cross-breeding experiment which is being carried on by the Department of Agriculture in this park. The public is showing much interest in the work and it has gained considerable publicity. A number of inquiries concerning the experiment were received from different parts of Europe.

Farming Operations.—As in the past, operations were confined to the growing of oats. Approximately 500 acres were put under crop, of which 200 acres were summer-fallow and the remainder spring ploughing. Twenty-five tons of green feed were reserved and from the remainder 15,000 bushels were threshed. During the year 8,900 bushels of oats were supplied to other National parks leaving feed and seed for Buffalo park requirements. As has been the custom each year, 200 acres were summer-fallowed for next season's crop. Temporary dams were again installed in the drainage ditches in order to flood the Ribstone meadow and insure sufficient moisture for the hay crop. The result was that one of the best crops on record was harvested, approximately 1,175 tons of well-seasoned hay being secured.

Fencing.—Eighty-five miles of main and cross fence were repaired and 11 miles of new fence built for holding pastures and lane ways.

Fire Protection.—The fireguards along both sides of the main fence on the north, south, and east boundaries, and 19 miles on the west boundary were ploughed. There were no fires in the park.

Permits.—During the year permits were issued to settlers, covering the removal of 1,000 cords of dry wood and 6,000 willow pickets.

Visitors.—Their Excellencies, Lord and Lady Byng of Vimy, again visited Buffalo park during the year and spent several hours viewing the herd. The



Mount Cathedral, Yoho National Park.

number of registered visitors at the park gate was 8,500, and it is encouraging to note the very great interest taken in the animals.

Elk Island Park

Animals.—Owing to the very mild winter the buffalo came through in fine condition. The animals in the park are increasing and now number as follows: buffalo, 446; moose, 207; elk, 450; deer, 299 (estimated). Coyotes were plentiful and 64 were destroyed by the wardens.

Visitors.—Visitors to the park numbered 7,610, a marked increase over the figures for 1924-25.

Haying.—An estimated amount of 350 tons of hay was harvested.

Permits.—Four permits for haying privileges were granted to farmers living in the vicinity and eleven permits were issued to cut dead timber for fuel. Two permits for cutting ice, five building permits and eight camping permits were issued.

Fires.—The park was free from fire. The main fireguard was kept in condition by the usual ploughing and disking.

Fencing.—Approximately two miles of 8-foot fencing were built to enclose a horse pasture, and general maintenance was carried out on other sections of the park fence.

Roads.—Eleven miles of road, 40 feet wide, were cut out, culverts and fills put in and about 6 miles of light grading done. The existing roads were maintained in good order.

Birds.—Prairie chicken and partridge were not so numerous doubtlessly due to the excessive rains which occurred in the hatching season. The blue heron is extending its nesting area and increasing. Migratory birds were present in their usual large numbers.

Nemiskam Antelope Reserve

Animals.—The past year was a very successful one at Nemiskam Antelope reserve. There was an increase of approximately 75, making the total number now in the reserve 309. The herd is free from disease and all deaths have been due to old age. It is observed that the does live to a greater age than do the bucks. The greatest drawback to the progress of the herd is the presence of coyotes and despite trapping and poisoning measures it is almost impossible to keep the park rid of them. In trapping, too, there is always danger to the antelope. Snow-ploughing was done to break the crust, but very little feeding was necessary until late in the winter.

Visitors.—Seventy-one visitors came to the park last year.

Point Pelee Park, Ontario

Visitors.—Close proximity to Detroit and other centres of population in the United States as well as Canada has made this small, but attractive park one of the most popular resorts in Ontario. Eleven thousand, four hundred and fifty (11,450) motor cars visited the area last year, the total number of visitors being estimated at 45,800. There were 119 tents of campers on the grounds; and two troops of Boy Scouts from Windsor, one troop from Kingsville and one from Ford City were under canvas in the park.

Roads.—The heavy automobile traffic in the park necessitated unusually heavy maintenance work. A considerable quantity of lake gravel was secured and piled for future use on road work. Road signs have been placed at appropriate points to ensure safety in driving.

Improvements.—A new life-saving station was erected by the Department of Marine and Fisheries to replace the old structure, and tracks were laid to make it possible to launch the boat on either side of the point.

Wild Life.—The park again witnessed a large visitation from migratory birds, as this is the main gateway of the migration route. Non-migratory birds have increased in numbers.

Two hundred and ninety-seven permits were countersigned for duck shooting, these permits allowing for four days shooting per week from October 1 to December 14.

Raccoon and rabbit are increasing; black squirrel, an importation of a few years ago, are making splendid progress, but there is a decrease noted in muskrat.

Fort Anne Park, Nova Scotia

Fort Anne last year attracted approximately 14,000 visitors. A record number signed the register at the Museum, the figures being 7,378.

Among the outstanding events of the year was the unveiling on the 6th of May of a tablet, erected by the Baronets of Nova Scotia to mark the three-hundredth anniversary of the founding of their Order by Charles 1 in 1625. The Historical Association of Annapolis Royal took over the DeLancey burial ground on August 3 for perpetual upkeep. Delegates numbering 125 who were attending a convention of the Union of Municipalities, visited the park and Museum on August 20. An interesting old French mortar arrived and was placed in position in the fort grounds on August 31. This mortar, 900 pounds in weight, was obtained from the British Government through the agency of the Historical Association of Annapolis Royal. It is of brass, bears the French coat-of-arms, and is of about contemporary date with the fall of Port Royal, 1710.

St. Lawrence Island Parks, Ontario

A real need on the part of the general public is being met by the St. Lawrence Island parks. It is estimated that 40,000 persons visited these areas during the past year. The provision of stoves, pavilions, and other facilities makes these resorts very popular for campers; and companies of Girl Guides, Boy Scouts and various associations take advantage of the opportunity to hold their outings and spend their holidays in these areas.

Vidal Point, Saskatchewan

Six thousand, nine hundred and fifty (6,950) visitors made use of the recreational facilities maintained at this reservation.

PROTECTION OF MIGRATORY BIRDS

ENFORCEMENT OF THE MIGRATORY BIRDS CONVENTION ACT

Each year it is customary to refer the existing Regulations under the Migratory Birds Convention Act to the proper authorities of the various provinces and secure their suggestions respecting minor changes which would be advantageous in those provinces. Slight amendments to the Regulations were made and a new consolidation published and distributed prior to the opening of the hunting season. There was an amendment to the statute, as well. Under it, Ontario game officers were given the authority of game officers under the Dominion Act. Under the same statute the game officers of other provinces may be similarly appointed and the province of British Columbia has already had its officers appointed migratory bird officers. Officers of the provinces of Manitoba and Alberta also hold appointments under the Migratory Birds Convention Act.

The staff which enforces the Migratory Birds Convention Act is at the same strength as formerly. Full co-operation with provincial game departments has been enjoyed. The enforcement of bird protection measures has been left almost entirely in the hands of the provincial authorities, in accordance with the original understanding.

In addition to the provincial officers who are enforcing the law some hundreds of honorary game officers co-operate in this connection and furnish this office with valuable information respecting bird conditions in their localities. They are kept informed of the work of other honorary officers through a system of circular letters. The officers of the Royal Canadian Mounted Police have co-operated in enforcing the law and in carrying out investigations. The advantage of this force being available is obvious. All members of the force are adways on the lookout for infractions of the migratory bird law, and they have helped materially in its administration.

The Chief Officer for the Maritime Provinces has supervised a staff of officers in those provinces and, in addition to taking part in educational work, has taken an active part in the administration of the law.

The Chief Officer for the province of Ontario and Quebec, with a staff of temporary assistants, has protected the abundant sea-bird life on the north shore of the gulf of St. Lawrence in Quebec during the summer, and during the winter he has engaged in educational work in his district.

The Chief Officer for the western provinces has been occupied in supervising the sanctuaries and public shooting grounds in his district and in educational work. In view of the extended area of his district and the several provinces which it includes, an important part of his duties has been to keep in close contact with provincial departments concerned.

Forty-four offenders were prosecuted by Dominion officers for breaches of the Migratory Birds Convention Act, and fines imposed totalled \$580. Suspended sentences were imposed in fourteen cases. The department has not detailed information respecting cases brought under this Act by provincial officers.

The department has worked in conjunction with the Department of Marine and Fisheries in preventing, in so far as possible, loss of bird life caused by oil dumped from vessels in navigable waters or reaching navigable waters in other ways. All masters of vessels leaving the waters of the gulf of St. Lawrence were advised concerning the oil menace to wild life by the Department of Marine and Fisheries. Oil dumped on the waters has caused the death of unknown numbers of water-fowl and is responsible for other serious damage as well.

The Air Service, Department of National Defence, has co-operated in the enforcement of the law by conveying officers by seaplane.

Permits and Licenses.—Permits and Licenses were issued as follows:—

Purpose	No. of Permits
Collection of birds for scientific purposes.....	219
Possession of birds for propagating purposes.....	413
Capture of birds for propagating purposes.....	41
Destruction of certain birds when proved to be seriously damaging agricultural or fishery interests.....	45
Taking of birds for banding purposes.....	96
Practising taxidermy	74
Shooting of geese and brant in Queens and Shelburne counties, Nova Scotia, in the open season provided by law.....	190

Almost one hundred people co-operated with the Canadian National Parks Branch in studying bird migration and bird life by placing numbered bands on wild birds. Much is being learned of the distribution, breeding habits and migratory flight of wild birds through this method. During the year over seven thousand birds were banded and almost two thousand returns were reported.

Bird Sanctuaries.—New sanctuaries have been reserved during the year as follows: Birch Island bird sanctuary, Betchouane, Bradore Bay and certain property along the Ottawa river, now known as the Aylmer Road bird sanctuary, in the province of Quebec. The first three sanctuaries are for the protection of the sea birds in the county of Saguenay, province of Quebec.

Public Shooting Grounds.—Pelican lake in the province of Manitoba was reserved as an additional public shooting ground. There are now fifty-one public shooting grounds in Canada.

The large number of sanctuaries and public shooting grounds which have been reserved in Canada encourages further efforts in the United States for increasing the wintering sanctuaries. This will help to save Canada's breeding stock of the birds which go to the United States for the winter.

Educational.—Special efforts were made to acquaint Indians with the need of protecting our migratory birds during the nesting season, and it is evident from many signs that good results were obtained by this procedure. Among the replies received was one from an Indian chief which showed, in a most interesting way, that the spirit of conservation in his breast had been aroused to action by the efforts put forward. He intimated that he was now using his influence in every possible way with his people to advance all measures for the protection of wild life.

Appeals were broadcast from various stations during the heavy storms in spring asking people to feed the birds.

Boys' camps were visited and the youth of the country instructed, as far as possible, in natural history and the need for conserving wild life. The camp fire affords the best opportunity for approaching young people and telling them about natural history subjects. It is not possible to teach natural history effectively without a very considerable proportion of field work. Results from this work have been most gratifying and justify the belief that the rising generation will have an appreciation of wild life which will be of great benefit in conserving this part of Canada's national resources.

Among the many successful bird-house competitions reported to this office was the one held by the Kiwanis Club of Edmonton, Alberta. This was their second annual bird-house contest and four hundred models were submitted. It was said that from a standpoint of novelty, workmanship and general utility the entries were all worthy of commendation.

The Supervisor assisted Dr. R. E. De Lury, Research Astronomer, Dominion Observatory, of this Department, in arranging for an essay competition based upon Dr. De Lury's lecture, "Shooting Birds with a Camera," which was given through radio station CNRO. Twenty-one prizes were awarded to school children sending in the best essay on this lecture.

The total distribution of pamphlets of all kinds amounted to 202,129. Publicity concerning the shooting seasons and other bird protection matters was obtained through the distribution of 82,296 posters, 23,889 copies of the Act, and 16,065 abstracts of the Regulations under the Migratory Birds Convention Act.

Numerous lectures on bird protection were given by members of the permanent staff, and lantern slides and other material were furnished to honorary game officers and others for lecture purposes.

The library now comprises 3,506 slides, showing about 333 different species of birds. In all 2,235 slides were lent. These slides are lent free of charge to responsible persons. Motion picture films of bird life were also distributed and proved excellent publicity media.

ECONOMIC INVESTIGATIONS AND GENERAL ITEMS

The Chief Officer for the Maritime Provinces collected a number of mergansers from the waters of the Miramichi, Nashwaak, and Restigouche rivers, New Brunswick, so that the food habits of these birds might be determined by stomach analyses. This work was undertaken in order to determine whether these birds were actually destroying trout and salmon fry to the extent claimed by a large number of fishermen who are interested in fishing in these waters.

The Chief Officer for the western provinces carried out investigations regarding the relations of double-crested cormorants to fishing interests in lake Manitoba; water-fowl sickness at lake Newell, Alberta; prevalence of perennial sow thistle and Canada thistle on Ministik and Buffalo Lake bird sanctuaries; and prevalence of crows on Ministik Lake sanctuary.

Seven trumpeter swans which died from lead poisoning in British Columbia were saved as scientific specimens by the Chief Officer for the western provinces.

Christmas bird censuses were carried out at many points by members of the various naturalists' clubs and officers of this Branch. At Ottawa thirteen species were found and four hundred and seventy-one individuals. The temperature on the day on which this census was taken was 18° below zero. There was an increase in the number of censuses taken in Canada.

Advisory Board on Wild Life Protection.—During the year this board held thirteen meetings and many important items were discussed.

International Co-operation.—The Commissioner of Canadian National Parks and the Supervisor of Wild Life attended the meeting of the International Association of Game, Fish and Conservation Commissioners, held at Denver, Colorado, on August 20 and 21. The importance of this conference to Canada is that all the important wild life organizations considered the subject of bird refuges in the Southern States, and, consequently, it is expected that rapid advances will be made in the matter of the establishment of these refuges. In so far as the bird life of this continent is concerned, one of the greatest needs of to-day is that there should be ample feeding grounds in the Southern States to carry the birds through the winter. The migratory birds breed in Canada and it is improbable that any scarcity of a summer food supply here will ever arise.

The Supervisor attended the annual meeting of the American Ornithologists' Union held in New York, November 10 to 13. It is gratifying to learn that the Union decided to hold its 44th stated meeting at Ottawa in the fall of 1926. This will be the first meeting of the Union ever held outside the United States.

HISTORIC AND PREHISTORIC SITES

During the fiscal year 1925-26 the work of marking those historic sites which are considered of national importance by the Historic Sites and Monuments Board and recommended to the department for action, was steadily carried on; restoration and preservation work to prevent deterioration was completed on several buildings and other structures previously acquired, and in addition the control of other sites was obtained on which to erect memorials from time to time.

The present personnel of the Board is: Brigadier-General E. A. Cruikshank, LL.D., F.R.S.C., F.R. Hist. S., Ottawa, Ont., chairman; James H. Coyne, M.A., LL.D., F.R.S.C., St. Thomas, Ont.; His Honour, Judge F. W. Howay, LL.B., F.R.S.C., New Westminster, B.C.; J. Clarence Webster, M.D., D.Sc., LL.D.; F.R.S.C., Shediac, N.B.; His Honour, Judge W. Crowe, LL.B., K.C., Sydney, N.S.; J. B. Harkin, Commissioner, Canadian National Parks, Ottawa, Ont.; Arthur A. Pinard, Chief, Historic Sites Division, Canadian National Parks, Ottawa, Ont., secretary.

To date, from the several hundred sites brought to the attention of the department, 182 have been selected as being of national importance. The control of 104 of these has been acquired by transfer from other departments, lease of occupation, or deed of gift.

On sites considered of national importance, an artistic bronze tablet bearing historic data, is placed. Where no remains exist the tablet is attached to an

inexpensive standard in the form of a large boulder or a cairn constructed of rubble stone.

In addition to the 42 sites previously dealt with the following sites were marked during last year:—

Maritime Provinces

Louisbourg, Cape Breton.—Two tablets were placed on the new lighthouse erected by the Department of Marine and Fisheries. One of these marks the site of the first lighthouse tower in North America, erected by the French in 1731, also the site of the batteries erected and utilized by the British against the French who had built defensive works on the island opposite the entrance to the harbour of Louisbourg. The other commemorates the valour and endurance displayed by the French forces which, in 1745, and again in 1758, garrisoned the batteries on the island. A caretaker was appointed.

Fort Edward, Windsor, N.S.—A cairn and tablet were erected to mark the site of Fort Edward, erected in 1750 by Major Charles Lawrence for the protection of Piziquid and the surrounding district and as an evidence of British sovereignty in Nova Scotia. The fort was of special importance during the war with France 1755-62 and the American Wars of 1776-82 and 1812-15. It was also closely associated with the deportation of the Acadians in 1755. Repairs were made to the old blockhouse which stands on the site.

Fort Cumberland, near Amherst, N.S.—A tablet bearing an inscription in French was attached to the memorial erected during 1924.

Fort Meductic, near Woodstock, N.B.—A cairn and tablet were erected adjacent to the highway about 4 miles from Woodstock to mark the site of Fort Meductic, chief Maliseet stronghold in Acadia in the 17th and 18th centuries.

Fort la Tour, St. John, N.B.—A tablet was placed on the rock wall facing Portland street to mark the site of Fort la Tour, erected in 1631 by Charles de la Tour, Governor in Acadia.

Battle of the Restigouche, Campbellton, N.B.—A cairn and tablet were erected in a small park in the town to commemorate the events associated with the naval battle which took place in the spring of 1760 between a French squadron, which had taken shelter in the Restigouche river, and a British squadron under the command of Honourable John Byron. This was the last naval battle of the Seven Years' War in North American waters.

Charlottetown, P.E.I.—A tablet was placed on the wall of the lobby of the Provincial Building to commemorate several important events associated with Prince Edward Island (formerly Island of St. Jean), which was discovered by Jacques Cartier in 1534, settled by Chevalier St. Pierre in 1720-21, surrendered to Great Britain in 1758, annexed to Nova Scotia in 1764 and made an independent colony in 1769. It was raided by American privateers in 1775, the United Empire Loyalists arrived in 1783, the first Confederation conference took place in 1864, and the Island joined the Dominion of Canada in 1873.

Quebec

Fort Chambly, Chambly Basin.—A tablet was placed in the old cemetery to commemorate the men who, under the walls of the old fort, gave their lives for their country. Repairs were carried out on the inner walls of the fort, a sundial was erected in the cemetery and minor improvements were made on the property comprising the site.

Hochelaga, Montreal.—A large boulder to which is affixed a tablet was placed on the McGill University grounds facing Sherbrooke street, to mark the approximate site of the Indian village of Hochelaga, visited by Jacques Cartier in 1535 and abandoned before 1600.

Fort Richelieu, Sorel.—A cairn and tablet were erected near the Canada Steamship Lines dock to mark the site of Fort Richelieu which was constructed of wood in 1643 by M. de Montmagny at the mouth of the Richelieu river. The fort was reconstructed in 1665 by Pierre de Saurel and served as an important defence post against the attacks of the Iroquois.



Fort Lennox, Ile-aux-Noix, Quebec.

Fort Longueuil, Longueuil.—A tablet was placed on the wall of the Roman Catholic church which now occupies the site of Fort Longueuil, erected of stone in 1685-90 by Charles de Longueuil II as an outpost against the Iroquois. The fort was garrisoned by the invaders in 1775 and demolished in 1810.

Fort Charlesbourg Royal, Cap Rouge.—A cairn and tablet were placed on the plot of land at the mouth of Cap Rouge river and adjacent to the main road passing through the village, to mark the site of the forts built by Cartier in 1541-42 and extended by Roberval in 1542-43.

Tadoussac.—A cairn to which is affixed two tablets was erected immediately across the road from the old Tadoussac chapel. This was the oldest French establishment and Christian mission in Canada and was an early resort of Basques for the whale fishery. Here Jacques Cartier arrived September 1, 1535, and here in 1600 Pierre Chauvin built the first house in Canada. At Larks Point opposite, Champlain effected the war alliance of the French and Algonquins against the Iroquois.

Battle of Coulée Grou, Rivière des Prairies.—A cairn and tablet, enclosed with a fence, were erected adjacent to the highway from Montreal to Rivière des Prairies to commemorate the engagement of July 2, 1690, between the French under Colombet and the Iroquois.

Battlefield of Odelltown near Lacolle.—A bronze tablet was placed on the cairn erected last year to commemorate the engagements which took place there

on the 7th and 9th November, 1838, between the Loyal Militia of Canada and the rebels.

Ontario

Port Arthur.—A cairn and tablet were erected in Gore park to commemorate the several events associated with the early history of that district. Radisson and Groseillers were the first Europeans to reach Thunder bay, 1662. Wolseley's Red River Expeditionary Force camped at the foot of Arthur street, May 19, 1870, advanced by the Dawson road and lakes and rivers connected by portages to Fort Garry to suppress the Red River rebellion. The Dawson road, begun in 1869, was used by immigrants to the west until the construction of the Canadian Pacific railway in 1882.

Fort Nottawasaga, near Stayner.—A cairn and tablet were erected near the hotel at Wasaga beach to commemorate the events associated with the block-house built in 1814 by Lieut.-Col. Robert McDouall and destroyed by enemy forces, August 13, 1814.

Western Canada

Forts Rouge, Gibraltar and Garry, Winnipeg, Man.—A tablet was placed on the gateway of old Fort Garry to commemorate Fort Rouge, established by La Verendrye in 1738, Fort Gibraltar, built by the North West Company in 1804, old Fort Garry, the headquarters of the Hudson's Bay Company after the coalition with the North West Company in 1821 and new Fort Garry, built of stone in 1836-39, which was the seat of government until the transfer of the territory to Canada in 1870.

Selkirk Settlement, Point Douglas, Winnipeg, Man.—A cairn and tablet were erected in Sir William Whyte park to mark the site of Fort Douglas, headquarters of the first British settlement west of the Great Lakes. On Point Douglas, in 1812, the first wheat in the West was sown.

Fort Calgary, Calgary, Alta.—A cairn and tablet were erected in Central park near the City Hall to commemorate the arrival, in August, 1875, of troop "F" of the North West Mounted Police, under Inspector E. A. Brisbois, and the establishment of their post, Fort Calgary, on the west bank of the Elbow river at its junction with the Bow river, within the limits of the city of Calgary.

Fort Kamloops, Kamloops, B.C.—A boulder and tablet were placed in Riverside park in memory of the pioneer fur traders, who, by establishing themselves in this locality, aided in securing the country for Great Britain.

Gonzales Hill, near Victoria, B.C.—A cairn and tablet were placed on the summit of the hill to commemorate the exploration of the Straits of Juan de Fuca, 1787-1792. The fur trade explorers were Charles William Barkley, who discovered the straits in 1787; Commander John Meares, who entered the straits in 1788; and was followed by Robert Gray in 1789. Captain George Vancouver, R.N., proved the non-existence of a reputed Northwest passage in these latitudes. He also made the first circumnavigation of Vancouver island, and named and proved its insular character in 1792.

Preservation Work

Fort Lennox, Ile-aux-Noix, P.Q.—Repairs were carried out on the several massive stone buildings, including laying of floors, plastering and pointing of walls, painting of roofs, erection of eave troughs, installation of windows, etc. A new entrance to the large dock was also provided from the mainland.

Madeleine de Verchères, Verchères, P.Q.—A new chain fence was constructed around the site, and repairs carried out to the masonry of the memorial.

Battle of Eccles Hill, near Frelightsburg, P.Q.—A new fence was constructed around the memorial plot, the site cleared of brush and trees planted thereon.

Glengarry Cairn, near South Lancaster, Ont.—The masonry on the massive cairn erected by the Highland Militia of Glengarry in 1838 was repointed and the island on which it is situated cleared of underbrush.

Fort Wellington, Prescott, Ont.—A new fence was erected around the south and west sides of the fort property, outer and inner palisades repaired, the roof leading to the listening post replaced with timbers where necessary, and the floors in the buildings oiled. The increased popularity of the fort was evident from the large number of tourists who visited the site.

Acquisition of Sites

Action was also taken in regard to the acquisition of other sites recommended to the Department for action by the board and for the preservation of memorials and other structures previously acquired as follows:—

Maritime Provinces.—Four.

Quebec.—One.

Ontario.—Two.

Western Canada.—Three.

In addition to the above the Provincial Government of British Columbia has reserved and set aside an area of thirteen acres, comprising lot 1361, range 3, Coast district, for the purpose of a provincial park to be known as the "Sir Alexander Mackenzie Historic Park," and has appointed a board comprised of members of the Historic Sites and Monuments Board to manage, regulate and control the said park. It is proposed to erect a suitable memorial on the exact terminus of Sir Alexander Mackenzie's transcontinental journey, which has recently been identified.

Sites to the number of sixty have been deemed by the board to be of national importance and will be marked at future dates. Ten of these sites are in the Maritime Provinces; fifteen are in Quebec; twenty-six are in Ontario; while nine are located in Western Canada.

REVENUE

Revenue collected by the Canadian National Parks Branch for the fiscal year ending March 31, 1926, shows an increase of \$3,052.14 as compared with the previous year. The statement which follows shows the net increases and decreases in the different parks:—

Park	1925-26	1924-25	Net	
			Increase	Decrease
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Rocky Mountains	115,409 79	103,823 37	11,586 42	
Jasper	12,849 93	9,263 23	3,586 70	
Buffalo	37,919 41	51,139 91		13,220 50
Antelope	150 00	192 00		42 00
Glacier	370 37	395 00		24 63
Waterton Lakes	4,808 81	4,119 82	688 99	
Fort Anne	35 00	35 00		
Yoho	2,250 91	2,377 78		126 87
Kootenay	6,092 93	4,989 13	1,103 80	
Point Pelee	138 25	382 00		243 75
Brereton Lakes	64 00	25 00	39 00	
Elk Island	168 6c	110 25	58 35	
Vidal Point		38 00		38 00
Historic Sites	13 00	51 00		38 00
Fines, forfeitures	1,880 99	2,522 86		641 87
Migratory Birds	443 50	79 00	364 50	
Totals	182,595 49	179,543 35	17,427 76	14,375 62

Net increase for all parks.....\$ 3,052 14

The Alpine Club of Canada

THE BANFF CLUB HOUSE

(Report prepared by the Secretary)

The attendance at the Club House was very satisfactory. During the earlier part of the season the weather was excellent, but that of the latter parts of August and September were not such as to induce visitors to prolong their stay. The building was placed in Banff as the capital of the southern Rockies and attracts attention by its outstanding situation and the beauty of the view it commands.



Party of Alpinists on the Bastion Glacier, Jasper National Park.

As usual many calls were received from members of other alpine clubs and also from strangers who required more technical information than the average visitor. The excellent library facilities enable much out-of-the-way knowledge to be gathered with little trouble. The series of club journals constitutes a unique feature.

During the season several expeditions of interest and importance were made by Club members. In July, Mr. and Mrs. W. A. D. Munday did much climbing in the Caribou range. In August, Dr. J. W. A. Hickson, President of the Club, and Mr. Howard Palmer, of the American Alpine Club, with the guide H. Kobler, made the first ascent of Bastion peak in the Rampart group southwest from Jasper. In September, Dr. Hickson, with Mr. L. S. Crosby, of Banff, and the guide Edward Feuz, made the first ascent of the Devils Head northeast of

Banff. In September also, Mr. and Mrs. Munday and Mr. T. H. Ingram, of Vancouver, with Mr. A. E. Agur, climbed mount Rodney at the head of Bute inlet. The next peak south was also climbed for the first time and the provisional name of Blake mountain was given it. Many of the glaciers in this region descend below 4,000 feet elevation and winter avalanches often plunge into salt water.

The number of guests was 153 and as usual came from widely scattered localities, a list of which is given below:—

Canada—British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia.

England—London, Oxford, Southampton.

Ireland—Moycullen.

United States—Connecticut, District of Columbia, Iowa, Massachusetts, Minnesota, New Jersey, New York, Ohio.

O'HARA LAKE CAMP

(Report prepared by the Secretary)

The twentieth Annual Camp of the Alpine Club of Canada was held on the shore of lake O'Hara on the Club's own lot. Surrounded on three sides by trees, the stream from the Opabin pass flowing through its centre, it faced across the lake, perhaps the loveliest view which could be imagined. Above the trees in the middle distance rose mounts Odaray, Stephen, Cathedral in its finest aspect, Wiwaxy peaks and the lower slopes of Abbot pass.

An unexpected and pleasant experience was the absence of both mosquitoes and bulldog flies, which in some years have given lake O'Hara a very bad name. The weather was most propitious, what rain there was came at night, there was no snow, and though there were a few smoky days, they were not in succession and many photographers achieved very satisfactory results. A subsidiary camp was placed in McArthur pass, but a few days' experience showed that members preferred to make the longer walk and stay at the main camp at night.

A curious fact was that the trail from Hector station to the lake, owing to the many tourists riding on it in recent years, was very much worse than it used to be. All the sand and soil has been worked out from between the stones, leaving a lumpy and unpleasant causeway in many places. A wagon road is under construction and it is hoped it will be completed in 1926.

The hut on Abbot pass was a very great convenience in climbing mounts Victoria and Lefroy without weary, and comparatively uninteresting, trudges during the night.

Mounts Victoria, Lefroy, Huber, Hungabee, Odaray, Schaffer, Wiwaxy peaks were all climbed several times under varying conditions but always with enjoyment. The two-day trip through the passes encircling the Mitre, mounts Lefroy and Hungabee was taken several times and as greatly enjoyed as when it was originated from the Club's Paradise Valley camp in 1907. Probably no excursion of such little difficulty gives so fine an insight into the secrets of the mountains.

Lake O'Hara is a fine centre for simple trips for off days. Lake McArthur and the Opabin pass were visited and the valley between mount Odaray and mounts Stephen and Cathedral.

Apart from the climbing the most interesting event in the history of the Camp was the account of the climb of mount Logan, Canada's highest peak (19,850 feet), organized by the Club, given by Captain A. H. MacCarthy, the leader of the expedition. A full history of the successful climb, in the face of great difficulties, appears in the Canadian Alpine Journal, Vol. XV. Many congratulations on the exploit were received from foreign countries.

The Swiss guides kindly lent by the Canadian Pacific Railway were Edward and Ernest Feuz, old friends who gave efficient and kindly service.

There were 141 guests placed under canvas, among them representatives of the Alpine Club, England; the English Ladies' Alpine Club; the American, French and Swiss Alpine Clubs; the British Columbia Mountaineering Club; the Appalachian Mountain Club; the Mazamas; the Sierra Club and the Royal Geographical Society.

Members present were drawn from the following places:

Canada—British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia.

England—London.

United States—California, District of Columbia, Illinois, Indiana, Iowa, Massachusetts, Minnesota, Missouri, North Carolina, New Hampshire, New Jersey, New York.

Hawaii—Honolulu.

Phillipine Islands.

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DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister W. W. CORY, Deputy Minister

NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

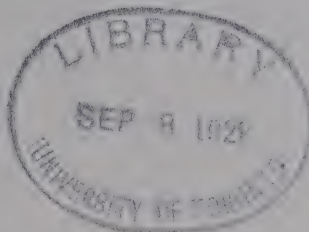
18th
Annual report

National Parks of Canada

Report of the Commissioner

YEAR ENDING MARCH 31

1926/1927



OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1928



Buffalo and Elk, Buffalo National Park.

DEPARTMENT OF THE INTERIOR, CANADA

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NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

INTRODUCTION

In September, 1926, the National Parks Branch completed its fifteenth year as a separate organization. Prior to 1911 the national parks were administered in connection with the Forestry and other branches of the Department of the Interior. In that year, however, the Minister considered that the growing importance of the parks warranted the creation of a separate branch to take charge of their administration and development. At that time the national parks totalled five scenic reserves in the Rockies, two animal reserves on the prairies, and the islands reserved among the Thousand Islands of the St. Lawrence river. Their combined area was 4,020 square miles, or considerably less than the present area of Jasper park alone. Today there are in existence ten scenic parks, three animal reserves, and two historic parks, with a total area of 10,300 square miles. There is, indeed, nothing more surprising than the way in which the national park idea has spread and taken hold of public imagination. Fifteen years ago the sound philosophical and economic principles back of this form of conservation had scarcely been recognized. Canadians, as a whole, were indifferent to their great possessions. Many, in fact, did not know that the national parks existed and others were inclined to regard them as national ornaments of little practical use. In recent years, however, there has been a remarkable change in the public attitude. The widespread growth of



Mt. Rundle and Echo river, Banff National Park.

travel, which is one of the marked features of this century, has given places of outstanding scenery a new interest and value. Alarm at the changes in the face of the country due to the rapid extension of our present industrial civilization, has emphasized the necessity of conserving a few untouched areas. In consequence, in the past few years, we have seen the national parks movement spread over the entire civilized world, so that there is now scarcely a great country which is not making some move to protect its scenic and historic possessions, both as a matter of national pride and because it is realized that such places have an important economic value. Tourist travel has become one of Canada's most important sources of revenue and national parks are recognized as perhaps the greatest magnet for the attraction of such travel. The name "national park" has come to indicate a high standard of scenic beauty and carries with it the nation's stamp of approval.

The new interest and pride in the parks is leading to an ever-increasing travel to them both on the part of Canadians themselves and people from other countries. There is evident, too, a demand for the creation of new parks in sections of the country where they do not exist and in consequence a new responsibility arises, that in the creation of any new areas there be no lowering of the national standard already established.

There is no place here to review the details of the accomplishments of the past fifteen years within the national parks themselves, the extension of the facilities for public enjoyment that have been provided, or the growth in the number of visitors they attract. Since the inception of the branch it has been the aim of the department to open the parks to an ever wider and more democratic use, and the increasing thousands, particularly of our own people, who now visit them yearly, is encouraging evidence that these ends, to a certain extent at least, are being attained.

REVIEW OF THE WORK OF THE YEAR

National Parks

TOURIST TRAVEL TO THE PARKS

The fiscal year 1926-27 was the most successful from the point of view of travel yet experienced by the National Parks of Canada. Practically all the principal parks showed an increase in the number of visitors over the preceding year, which had been the highest previously recorded. The totals of visitors to each park for the last fiscal year and the previous one, compiled from hotel, motor, and cottage registrations, were as follows:—

Park	1926-27	1925-26
Buffalo park.....	11,718	8,500
Elk Island park.....	13,320	7,610
Fort Anne park (estimated).....	14,000	14,000
Glacier park.....	3,000	3,956
Jasper park.....	17,657	15,765
Kootenay park.....	51,526	46,340
Nemiskam Antelope park.....	100	71
Point Pelee park.....	54,500	45,800
Revelstoke park.....	10,000	11,320
Rocky Mountains park.....	136,663	124,749
St. Lawrence Island parks.....	20,000	40,000
Vidal Point park.....	7,650	(not estimated)
Waterton Lakes park.....	16,237	9,041
Yoho park.....	35,000	6,245
Totals.....	391,371	333,397

As in other years Rocky Mountains park, the oldest and most accessible of all the national parks by both rail and motor, showed the largest number of visitors. Registrations at the various hotels in this park totalled 52,066, of which 35,642 were from the United States, 16,424 were Canadians, 2,298 were from transatlantic points, and 1,573 were from transpacific countries. While there has been a steady gain in rail travel to this park the automobile is undoubt-



Vista lake from Banff-Windermere Highway, Kootenay National Park.

edly the largest factor in extending its field of service. During the past year 18,069 cars, carrying 67,421 passengers, entered the park by the Kananaskis or eastern gateway; of these, 16,731 cars were of Canadian origin and 1,338 from the United States. The total number of cars entering by the western or Radium Hot Springs gateway was 6,684, carrying 25,763 passengers, of which 4,682 were of Canadian origin and 2,002 from the United States. Figures for the previous

year were: eastern gateway, 13,155 cars, carrying 52,573 passengers; western entrance, 5,727 cars. Registrations showed that the foreign cars represented 41 different states in the Union. There were also 4 cars from England, 1 from Scotland, 1 from the West Indies, 2 from Australia, 1 from New Zealand, and 9 from Honolulu.

The most important event from the tourist point of view was the opening of the new highway from Lake Louise to Field. This road for the first time opened Yoho park to motor travel and brought within reach of additional thousands the glories of the famous Yoho valley and Emerald lake. Crossing the Divide by the famous Kicking Horse pass, the new highway drops down the west slope of the Rockies, utilizing for a part of the way the old grade of the Canadian Pacific railway, abandoned when the famous spiral tunnels through Cathedral mountain and mount Ogden were built. Starting from Lake Louise at an altitude of more than a mile above sea-level, the road drops 1,500 feet in 16 miles, yet with no grade greater than 8 per cent and this only for a short distance. From a scenic standpoint the highway is superb. The region is one of the most impressive in the entire Rockies and as the road swings down from the Divide in great spirals it affords magnificent views of the Kicking Horse valley, with the railroad coiling in and out of the tunnels as it climbs upward to the pass. To the north can be seen the narrow gorge which forms the Yoho valley, closed at its head by shining icefields, while directly to the west rise the splendidly sculptured masses of Cathedral mountain and mount Stephen, lifting their sheer walls of rock for over 7,000 feet from the valley below. The road was opened for traffic on July 17 and from that date to the end of the season 7,000 cars came into the park. The sudden influx of traffic meant a considerable strain to the park organization but it admirably met the new conditions and the traffic was handled without a single accident of any kind.

During the year work was also prosecuted on the road from Field to the western boundary of Yoho park and by the end of the season construction was practically complete, leaving only the surfacing for the following spring. This section forms part of the new highway from Lake Louise to Golden which, it is expected, will be open for travel next season. Further construction work was also carried on by the British Columbia Government on the section of 17 miles from the western boundary of the park to Golden, which is being built by the province, and by the end of the year this road, too, was within sight of completion. For 11 of its 17 miles this last section will pass through the magnificent gorge of the Kicking Horse, clinging to its side at times at an altitude of approximately 800 feet, and providing a thrilling climax to what will be a new transmontane highway, giving direct connections east and west.

In Jasper park construction was continued on the park section of the new Jasper highway and by the end of the season the road was completed from Jasper to within 13 miles of the eastern boundary of the park, a distance of 30½ miles. This road greatly extends the motoring possibilities of the tourist to Jasper park and permits the exploration of the historic Athabaska valley—the old route of the fur traders—from Jasper east as well as a view of the strangely contorted outer ranges of the Rockies which, from the geological point of view, are among the most interesting in the park.

In Waterton Lakes park additional work was carried out on the new Akamina highway, which was completed to what is known as Oil City, leaving only about 3 miles—from Oil City to the Akamina pass on the western boundary of the park—still to be built. Motorists in the past season who went over the road so far as completed were very enthusiastic about its picturesque quality and are looking forward with keen anticipation to its completion. When finished throughout this highway will supply another picturesque crossing of the main

Divide of the Rockies and eventually will provide a new through route, linking up the Canadian prairies and Glacier National park, Montana, with the Pacific coast.

Tourist Accommodation.—The increasing traffic has brought with it a demand for increased accommodation and in practically all the parks additions were made to the hotels and campsites.

An outstanding event of the year in Waterton Lakes park was the beginning of construction on the large hotel which is being built by the Great Northern Railway. The building, which is designed in the style of a Swiss chalet, has a superb site on a rocky peninsula which commands a view down the whole length of the lake—one of the most beautiful vistas in the entire Rockies. Accommodation for about 150 guests will be provided and it is the intention of the company to arrange for a fleet of motor buses connecting the hotel with



Prince of Wales Hotel from the Boulevard, Waterton Lakes National Park.

their other hotels in the United States Glacier national park. The need of accommodation of a high class nature in Waterton Lakes park has been much felt. Its provision will bring this park for the first time within the list of the premier resorts of the Rockies and a large increase in travel seems likely to result.

In February 1926 a regrettable fire destroyed one entire wing of the Banff Springs hotel, Banff. Plans were immediately made by the company for the rebuilding of this section on a larger scale in modern fireproof construction to correspond with the newer portions of the hotel. In the autumn work was begun on the new structure and carried on during the winter months, so as to have the new building ready for the tourist season of 1927. The plans include two lounges, stretching the entire length of the building on two floors and commanding the superb view of the Bow valley and mount Rundle for which this hotel is famous; a large ballroom; and 240 bedrooms.

In Jasper park, extensions totalling an expenditure of approximately a quarter of a million dollars were made by the Canadian National Railways to their Jasper Park Lodge. The dining-room was enlarged, a new ball-room was built and additional bungalows for sleeping accommodation were provided.

In Glacier park, the old Glacier House, so long a centre for alpine climbers and lovers of the Selkirk mountains, was finally closed down. The hotel was an old wooden structure and had become out of date as a high class resort. Travel to this park was accordingly restricted, most visitors staying over only between trains.

Camping Facilities.—Coincident with the increase in motor travel has been the demand for public campsites and similar facilities along the highways. Last year, at the Mount Rundle campsite at Banff, 4,235 camping permits were issued, an increase of 796 over the previous year. To meet the travel into Yoho park over the new highway a similar campsite was also established in that park at the junction of the Field-Lake Louise highway and the road leading up the Yoho valley. This campsite was equipped with stoves, shelters, sanitary conveniences, and running water piped from a clear spring 1,500 feet above. The camp was soon so well patronized that it was necessary to put a caretaker in charge and at the end of the season clearing was undertaken which will double its capacity for the coming year. To meet the increasing demand of motorists who desire to live under canvas, extensions were also made to the campsites in Kootenay park along the Banff-Windermere highway. Eight new shelters were erected, making a total of 22 shelters now in the park.

It was expected that the Mount Revelstoke highway leading up mount Revelstoke to the national park on its summit, would have been completed during the fiscal year, but owing to the outbreak of dangerous forest fires, it was necessary to call off the road gangs for a considerable period for fire-fighting purposes, and at the end of the season a small section still remained to be constructed. This park continues to attract attention through its scenic and winter sports possibilities. During the year improvements were made to the ski jump, which is considered one of the finest on the continent, and on which six world records have been made. The annual carnival, which took place February 15 to 18, proved to be the most successful yet held.

WILD LIFE

Wild life in the parks is increasing in a most satisfactory manner. While no accurate census of game is of course possible, the reports of the wardens and others show that the larger game animals are steadily growing more numerous and appearing in new sections of the parks. The recovery of both wild goat and sheep as a result of sanctuary conditions has been astonishing.

Deer and black bear are also exceedingly numerous. Elk are noticeably increasing in Rocky Mountains and Jasper parks. Grizzlies are reported as increasing in several of the outlying regions. In Jasper park both caribou and moose have come in from areas outside the boundaries and are making the park their home. Elk were observed in Yoho park last year for the first time but it is believed they were driven in from outside during the heavy fire in the Vermilion Crossing region.

One of the gratifying features of the increase in wild life has been that the department is now in a position to assist the efforts being made in other places to replenish regions where the original stocks have become depleted. During the past year fifty bighorn sheep were captured in the Rocky Mountains park and shipped to British Columbia for restocking an area near Spences Bridge, once a habitat of mountain sheep but from which they have practically disappeared. Twenty-five elk were also shipped from Buffalo park to restock the Kettle Valley reserve in British Columbia.



Antelope, Nemiskam National Park.

Antelope Herd.—The Government antelope herd at Nemiskam, Alta., continues to thrive. The original 50 enclosed in 1915 have now increased to 400, the increase during the past year being 165. This large increase is most encouraging. It indicates that the herd is now well established and holds out great promise for the future. The pronghorned antelope was once one of the most abundant large animals in North America, its numbers at one time even surpassing, it is said, those of the American bison. Yet within a little more than half a century the species had been reduced to probably not more than one hundred thousand. Estimates made by prominent game authorities place the number of wild antelope in Canada today at probably less than three thousand. The species is an extremely interesting one, not only on account of its curious markings and its highly developed power of speed, but also because it is the only representative of its class—an intermediary type between goat and cattle—found on this continent. To early settlers in the Canadian West the

antelope was only second in interest to the buffalo and the apparent success of the present experiment to save it from extinction is therefore the more gratifying.

Buffalo Herd.—The buffalo herds in the two animal reserves, Buffalo park and Elk Island park, continue to thrive and increase. Since 1909, when the herd was placed in Buffalo park, there has been a total increase of 13,786 buffalo from the original 716 purchased from Michael Pablo. The following table gives the yearly increase and the disposal of surplus animals:—

Year	Increase	Slaughtered for sale	Sent North
1909.....	50	..	..
1910.....	110	..	..
1911.....	172	..	..
1912.....	208	..	..
1913.....	236	..	..
1914.....	202	..	..
1915.....	442	..	..
1916.....	356	..	..
1917.....	537	..	..
1918.....	665	..	..
1919.....	1,148	..	..
1920.....	543	..	..
1921.....	1,075	..	..
1922.....	997	264	..
1923.....	1,823	1,847	..
1924.....	1,800	..	..
1925.....	2,337	..	1,634
1926.....	1,600	2,000	2,011
Totals.....	14,301	4,111	3,645

In this period there was a loss due to natural causes of 1,019 and in addition 129 were donated, lent or sold, chiefly to zoological collections in various cities in Canada, the United States and different parts of the Empire.

The satisfactory condition of the herd made possible the shipment of the 2,011 young animals in 1926 to what is known as the Wood Buffalo park near Fort Smith, N.W.T. Early in the season the work of cutting out and rounding up the young animals was begun and they were gradually drifted down through a series of corrals to the shipping point. On June 28 the first train load was forwarded to the end of rail at Waterways where the animals were loaded on scows to continue their journey down the Athabaska and Slave rivers to the eastern border of the park. Other trains followed at intervals of two weeks, until the total consignment had been transported.

The branch was also able to meet requests from several countries for buffalo for exhibition or scientific purposes. During the year twelve buffalo were shipped to Chicago, U.S.A., and two buffalo to Edmonton, Alta. One pair of buffalo for the Zoological Society of Wellington, New Zealand, and two female buffalo for Edinburgh, Scotland, were shipped from Elk Island park.

The slaughter of 2,000 animals for sale was also considered advisable and in the autumn a contract was let to a prominent packing company for the disposal of this number.

Publicity work in connection with the sale of buffalo products was also carried on. As the generation familiar with these articles has largely passed away, the market has had to be built up all over again. The beauty and durability of the robe for floor covering or motor robes required little advocacy and there has been a large demand for these. Its suitability for the making of high class fur coats, however, remained to be demonstrated. At the request of the National Parks Branch several prominent furriers were persuaded to make

a few sample coats as an experiment. The results were eminently satisfactory. It was found that by modern methods of tanning and scraping the hide can be rendered pliable and sufficiently light in weight. The darker portions of the fur were used for trimming in some cases and when completed the coats were so attractive that they aroused a great deal of interest wherever displayed. Exhibits of these were made at the Canadian National Exhibition, Toronto, and at other places in Canada, and large orders were received for both men's and women's coats.

The work in connection with the buffalo cross-breeding experiment was also continued with encouraging results. Nine calves representing various percentages of buffalo, yak, and domestic cattle were born. The hybrids so far obtained are promising looking animals and they form a source of much interest to scientific and other visitors to the park.



Maligne lake and Mt. Unwin, Jasper National Park.

Fish and Fishing.—Investigations with a view to ascertaining the suitability for piscatorial life were continued in the waters of Jasper park. Lakes Beauvert, Annette, Edith, Medicine, Jacques, and Maligne were given an extended examination. It was recommended that lake Mildred should be stocked with small-mouthed black bass after the lake had been rid of pike. The stocking of lakes Annette and Edith, and possibly Beauvert, with trout was also recommended.

Restocking was carried on Rocky Mountains park and 56,600 cut-throat trout fry were placed in Marvel lake; 41,000 in Leman lake, near the headwaters of the Spray river; and 10,000 in Bryant creek. A shipment of 50,000 salmon trout fry was sent from the Banff hatchery to Waterton Lakes park and liberated in the lakes there. Two shipments of rainbow trout fry, the first of 110,000 and the second of 42,000, were received from the United States Glacier National park, and these also were distributed in the various lakes and streams of Waterton Lakes park. In Yoho park 1,500 rainbow trout fry were placed in lake O'Hara.

FIRE PROTECTION

The year was one of the most serious from the point of forest fires experienced by parks' officers since the organization of this branch. A hot, dry June made the forests as inflammable as a match box and the low humidity was followed by severe electrical storms with little rain. The result was the outbreak of a number of fires due to lightning. Yoho and Kootenay parks suffered most heavily. The most severe fire in Yoho park was one which started outside the boundary. Fanned by high winds, in two days it leaped over seven miles and entered the Kicking Horse valley, nearly entrapping twenty men who were on their way to meet it. After a long fight this fire was got under control with a loss of about 7,200 acres of timber. Several other outbreaks occurred in this park but were extinguished without serious loss. In Kootenay park ten fires occurred, nine of which were got under control without serious damage. The tenth, which broke out on July 6, was one of the fiercest that has ever occurred in the parks. It raged for about six weeks. During this period no rain fell and for the first three weeks high winds and low humidity provided the worst possible conditions. A force of 200 men with all available equipment, fought desperately to protect the scenic beauty of the Banff-Windermere highway. The engineering staffs, foremen, timekeepers, mechanics, cooks and labourers worked in many cases literally day and night. The acting superintendent of Kootenay park was in charge of the operations and for six weeks this officer was never in bed. A gang of thirty men, with several trucks and a quantity of hose, was loaned by the Canadian Pacific Railway. The Royal Canadian Mounted Police also lent their assistance in patrolling the road and convoying tourists. During its course the fire crossed the highway, necessitating the closing of the road to through motor traffic for a short time. In all about four miles were burned over but, through the efforts of the fire-fighters, all bridges, wardens' cabins and other buildings in the area were saved. Although the loss was considerable, it is believed the scenery along the road will not be seriously impaired. On the



Waterton Lake from Bertha trail. Waterton Lakes National Park.

contrary, once the new growth has restored the green, it is probable that the opening up of the forest, affording as it does wider and more distant vistas, will be an improvement from the scenic point of view. In this fire the portable units and other mechanical equipment developed by the National Parks Branch were of the greatest assistance. It must be admitted that without these aids the losses would have been much more severe. As it was, in the end the fire, instead of having to be guarded and left to burn itself out after being isolated, as is usually the case with such severe conflagrations, was put out, and secondary outbreaks prevented as well.

On August 30 and 31 a convention of the parks' superintendents and supervising wardens was held at Banff with the Supervisor of Forest Protection from head office in the chair. A number of questions relating to fire protection methods were discussed and the interchange of views resulting from the difficult experiences of the year proved mutually beneficial and led to a number of valuable suggestions. The Supervisor of Forest Protection later visited all the various parks and inspected the existing equipment.

As a result of investigations at head office a new portable motor pumping unit was developed which weighs only forty-five pounds. These pumps can be readily carried on pony back or by hand and will be specially useful at high elevations where a hard climb is necessary. The mechanical forest fire-fighting equipment now in use in the different parks includes 79 portable pumping units, 2 auto pumpers, 1 trailer pumper, 3 railway motor speeders, 8 hand speeders, 3 motor boats, 48 canvas relay tanks, and 92 canvas water pack bags equipped with hand pumps.

PUBLICITY

With the wider public interest shown in the National Parks of Canada, the number of applications for tourist information correspondingly grows. Last year 2,877 letters of inquiry were received in the Publicity Division and a very large portion of these were given personal replies. The demand for informative literature necessitated the reissue of several booklets. A new edition of 10,000 copies of "Through the Heart of the Rockies and Selkirks"; 10,000 additional copies of "Bringing Back the Buffalo"; 25,000 copies of "The Banff-Windermere Highway"; 25,000 copies of the small booklet "Guide to Banff and District"; and a third edition of "The Call of Untrodden Ways" to the number of 10,000 were printed. Manuscripts for descriptive guides to the new Lake Louise-Golden highway and Waterton Lakes park were prepared and have been sent to the printers. A descriptive guide to Jasper park is now in course of preparation. A new edition of 10,000 copies of the "Guide to Fort Anne," one of the Historic Sites, was also issued. Publications distributed from head office during the year totalled 101,786. Photographs for illustration purposes numbering 16,010 were also sent out.

Among the best media of publicity are the daily and weekly press and monthly magazines. Many articles, which were either written in the branch or for which material or illustrations were supplied to outside writers, were sent out and appeared in Canada, United States, England, Holland, Germany, India, Australia, and New Zealand.

An active lecture campaign was also carried on by the official lecturer of the branch and his assistant through Canada and the central and western United States. In the course of the itinerary lectures were delivered before service clubs, educational institutions, boards of trade, chambers of commerce and similar associations, totalling 299. The audiences numbered approximately 52,500 persons. A short western tour was also undertaken by the Director of Publicity in Western Canada and the United States. Prepared lectures, accompanied by slides and lecture notes were sent out to the number of 83, of which

fifty-two were used in Canada, nineteen in the United States, one in New Zealand and one in China. Ten sets of lantern slides were also kept in circulation among educational institutions in the British Isles.

The branch took part in several expositions including the New England Sportsmen's Show at Boston. A buffalo exhibit and a national parks exhibit were also arranged for the Canadian National Exhibition at Toronto and for the Central Canada Exhibition, Ottawa.

JASPER TOWNSITE

The increase in the permanent population of Jasper townsite, owing to its having been created a divisional point by the Canadian National Railways, necessitated a considerable extension of the water system. Approximately a mile and a half of new mains were laid in the town. The new reservoir at Cabin lake, completed last fall, is giving excellent service. Extensions were also made to the electric light system, and an improved telephone service was secured by



Looking toward Surprise Point, Tonquin Valley, Jasper National Park.

the erection of an aerial cable line through the townsite which has overcome the induction previously experienced from the electric light service. Four blocks in the north end were taken up by the railway company for residential purposes and streets were opened up through this section by the National Parks Branch. The year was an active one for building in the townsite and permits were issued covering an estimated outlay of \$132,710.

Golf Course.—The Canadian National Railways maintained the golf course in excellent condition during the year. The first annual Jasper Park Lodge Tournament, premier event of the Jasper golf season, for which the Totem Pole trophy has been donated, was won by a Vancouver player over a large field of competitors.

Alpine Climbing.—Jasper park continues to be a popular centre for alpine climbing. The Alpine Club of Canada held its 21st annual camp in Tonquin

valley from July 26 to August 7; 138 members attended. In addition to the graduate climbs, exploration work was undertaken and successful first ascents were made of mounts Benning and Blackhorn. An attempt was made to scale mount Redoubt but the party had to give up before reaching the summit. Dr. J. W. Hickson, President of the Club, and Mr. Howard Palmer, President of the American Alpine Club, carried on exploration work in the Mount Edith Cavell region, and succeeded in making first ascents of the redoubtable mount Fryatt and of Throne mountain. The remarkable region surrounding the Columbia icefield continues to attract increasing attention. The annual Jasper-Field trail trip, passing through this region was made.

Mount Edith Cavell Memorial Service.—On August 1, the annual memorial service was held at the base of mount Edith Cavell. About 400 people motored or rode the twenty miles from Jasper to be present at the service, which is one of the most impressive events of the year. A brief religious ceremony, with music led by the Jasper Lodge orchestra and the gowned choir of Jasper Anglican church, was held. At its conclusion the audience remained standing while the bugler sounded the sombre "Last Post" and the flag dipped slowly in salute to the memory of the heroic British nurse.

Experiment with Tar Sands.—Several years ago the Department of the Interior reserved a number of sections and part sections in the tar sands region, near McMurray, in northern Alberta, for national parks' uses. This year, through the co-operation of the Mines Branch of the Department of Mines, the National Parks Branch was able to make its first practical experiment in the use of this material for road surfacing purposes. The services of Mr. S. C. Ells were loaned by the Mines Branch and he supervised the arrangements in connection with the excavation of the material and the assembling of a suitable mixing plant.



Motor Road entering Kicking Horse Canyon West of Wapta, Mt. Field in Distance.
Yoho National Park.

Thirteen carloads were taken from the quarry on the Clearwater river, loaded on scows and towed to railhead at Waterways, where the material was transferred to cars and shipped by rail to Jasper. The trial of the mixture was made on a section of the highway from Jasper townsite to Jasper Park Lodge, a road which is called upon to bear a great deal of traffic during the tourist season. For a distance of about half a mile the road was reshaped and regraded and then covered with a two-inch surface of the mixture. The total cost per square yard proved to be less than the cost of asphalt as laid in some of the Alberta cities and the surface was so satisfactory that it was decided to treat the remainder of the road in the same way. Later in the season reshaping and regrading of the remaining section were, therefore, carried out, and early in the coming season, as soon as conditions permit, the tar sand surface will be applied.

REVENUE

Revenue collected by the National Parks Branch during the fiscal year ended March 31, 1927, exceeded by \$58,909.22 the amount collected in 1925-26. The following statement shows the net increases and decreases from the different sources:—

Source	1926-27	1925-26	Increase	Decrease
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Rocky Mountains park.....	137,307 00	115,409 79	21,897 21	
Jasper park.....	20,368 20	12,849 93	7,518 27	
Buffalo park.....	64,045 50	37,919 41	26,126 09	
Antelope park.....	642 00	150 00	492 00	
Glacier park.....	170 25	370 37		200 12
Waterton Lakes park.....	6,012 80	4,808 81	1,203 99	
Fort Anne park.....	15 00	35 00		20 00
Yoho park.....	2,338 17	2,250 91	87 26	
Kootenay park.....	7,030 60	6,092 93	937 67	
Point Pelee park.....	491 82	138 25	353 57	
Brereton Lakes park.....	30 00	64 00		34 00
Elk Island park.....	218 00	168 60	49 40	
Historic Sites.....	34 25	13 00	21 25	
Fines and Forfeitures.....	2,636 97	1,880 99	755 98	
Migratory Birds.....	68 00	443 50		375 50
Lake Florence sanctuary.....	40 15		40 15	
Miscellaneous.....	56 00		56 00	
Totals.....	241,504 71	182,595 49	59,538 84	629 62

Net increase of total revenue.....\$ 58,909 22

TOWN PLANNING

The awakening of interest in town planning throughout the Dominion has involved considerable extension of publicity work on the theory and practice of town planning. Literature has been widely distributed and many articles on the subject have been contributed to *Town Planning*, the Journal of the Town Planning Institute of Canada, and other magazines and papers. The lantern slide service has been maintained and much correspondence has been conducted.

THE PRESERVATION OF TOTEM POLES

The Inter-Departmental Committee charged with the preservation of the totem pole art of the Indians of British Columbia held several meetings and during the summer restoration work was carried on at Kitwanga, B.C., under the direction of Mr. Harlan I. Smith, Archæologist of the Canadian National

Museum, Ottawa. Ten poles, some of which were in a bad state of decay, were cleaned and where the wood was found to be rotting, the cavities were scraped out and filled with cement. Fallen poles were re-erected and all poles firmly set in cement bases to prevent further deterioration. They were treated with creosote and painted by Indian workers in their own style. The Indians for the most part were sympathetic towards the efforts of the Government and in several cases lent the department valuable assistance in the restoration work.

Protection of Migratory Birds

Following suggestions from the different provincial game authorities, amendments were made to the regulations based on the Migratory Birds Convention Act. A closed season for a period of three years was declared, to protect black-bellied and golden plover and an extension of the closed season was provided for wood duck and eider duck. A consolidation of the Migratory Birds Regulations embodying these amendments and a few other minor changes was printed and distributed prior to the opening of the hunting season.

The chief officer for the provinces of Ontario and Quebec and a staff of temporary assistants, spent the summer on the north shore of the gulf of St. Lawrence, in Quebec, and patrolled the region with a view to protecting the abundant sea-bird life there. In British Columbia special efforts were made to give additional protection to the trumpeter swans, a band of which breed and live in that province.



Common Murres, St. Mary's Islands Bird Sanctuary, Saguenay county, Quebec.

In conjunction with the Department of Marine and Fisheries, the Department of the Interior sought ways and means for the reduction of the annual loss in valuable bird life caused by oil dumped from vessels in navigable waters. Last June a preliminary conference of the Powers of the world was called at Washington for the consideration of this question and the Deputy Minister of this department acted as Canadian representative. A draft convention was drawn up which will be submitted to the Maritime Powers and it is hoped that effective action will result which will remedy the existing conditions due to oil pollution in coastal waters and consequent damages to harbours, fisheries and marine bird life.

Historic and Pre-Historic Sites

The Historic Sites and Monuments Board held its annual meeting at Ottawa at which sites under consideration were reviewed with a view to defining their national significance and a selection made for marking in future years.

Of the 900 sites which have to date been reviewed by the board, 186 have been selected for attention. The control of 113 of these has been acquired.

In previous reports the action taken with respect to a number of sites was reviewed. The following shows those which were marked during the past year:

MARITIME PROVINCES

Louisbourg, N.S.—A cairn of field stones with a bronze tablet was placed on the property transferred by the Department of Railways and Canals to this department, to mark the site of King's Bastion, the entrance to the fortress of Louisbourg, which contained the Governor's residence, the barracks and the chapel.

Fort Nashwaak, Devon, N.B.—A cairn and tablet were placed in the existing town park to mark the site of the fort erected in 1692 at the junction of the St. John and Nashwaak rivers, by Governor Villebon. In the six years of their occupancy the French directed many raids from this fort against New England, one of which resulted in the capture of Fort William Henry, at Pemaquid, August, 1696.

Bathurst, N.B.—A cairn and tablet were erected on a plot of land provided by the town, at the intersection of Main and Murray streets, to commemorate the public services of Nicolas Denys, Governor and Lieutenant-General of the coasts and islands of the gulf of St. Lawrence from Canso to Gaspé, 1654-88. Denys was a pioneer in trade and the fishing industry, a naturalist, and author of a classical work on Acadia published in 1672. His chief residence was at Point au Pere, where he died and was buried in 1688.

Annapolis Royal, N.S.—The Fort Anne Historic park, Annapolis Royal, N.S., has become one of the most popular tourist attractions in that province. Last year there were 14,000 visitors, a large number of whom were from the United States. Under the direction of the Historical Association of Annapolis, and in the presence of the Lieutenant-Governor and a very distinguished company, a memorial celebration was held on August 2 in commemoration of the production here of Lescarbot's play or masque, "Neptune's Theatre," in 1906. A bronze tablet, the gift of the French society "Le Souvenir Colonial Français," commemorating Charles de Monou d'Aulnay, was unveiled on June 7 by the President of the Historical Association of Annapolis Royal. An interesting English cannon and carriage used at the time of the expulsion of the Acadians, was received from the city and military authorities of Halifax, and placed in the park.

QUEBEC

Fort Lennox, Ile-aux-Noix.—A tablet was placed on the outer wall at the north entrance of the fort, marking the site as a gateway to Canada and an advance post against the Iroquois and other invaders. The island was fortified by the French before 1759 and additional works constructed by the Americans in 1775. The whole place was rebuilt by the Imperial authorities during the period from 1812 to 1827.

Fort St. Jean, St. Johns.—A boulder and tablet were placed on a plot of land comprised in the military reserve, facing Champlain street, to mark the site of the French fort constructed there in 1748 by M. de Lery. This post was

for a long time the rendezvous for all the military expeditions towards lake Champlain. It was destroyed in 1760 to prevent its capture by the English and rebuilt by Governor Carleton in 1775.

Fort Three Rivers, Three Rivers.—A boulder and tablet were placed on a plot of land at the corner of rue des Casernes and the driveway, adjacent to the Customs building, to mark the site of the fort built there in 1634, which became a centre for fur trade with the Indians. The fort was besieged on many occasions by the Iroquois and demolished after the treaty of peace with them in 1668.

Fort de Maisonneuve, Montreal.—A tablet was placed on the outer wall of the Customs House, Youville Square, Montreal, at the right hand entrance to mark the site of the fort built there in 1645 by Paul de Chomedey, Sieur de Maisonneuve, and which became the birthplace of Montreal.

St. Louis de Blandford.—A tablet was supplied for a memorial to commemorate the founding of the settlement in March, 1825, by Charles Heon. The cairn upon which the tablet was placed was erected by local interests, who also looked after the placing of the tablet.

ONTARIO

Fort de Levis, Adams' Point, Grenville County.—A cairn and tablet, inclosed by a fence, were erected on a small plot of land donated by Mr. James Adams, and adjacent to the Montreal-Toronto highway, four miles east of Prescott, to mark the site of Fort de Levis, constructed on isle Royale (Chimney island) by Champlain Francois Pouchot in 1760. After a gallant defence, on August 25, 1760, its garrison surrendered to the British forces commanded by Sir Jeffrey Amherst. The unveiling ceremonies were carried out on August 25, 1926, in accordance with arrangements made by the Prescott Board of Trade and the Women's Institute.

Fort Cataraqui or Frontenac, Kingston.—A tablet was placed on the southern wall of the entrance gate to Tete du Pont barracks to mark the site of the fort erected by Count de Frontenac in July, 1673, and rebuilt by La Salle in 1675. For many years this fort was the key to the West, the base of La Salle's explorations and a French outpost against the Iroquois and English.

Richmond, Carleton County.—A cairn, tablet and fence were erected on a small plot of land donated by Mr. Samuel Mann, adjacent to the highway from Ottawa to Richmond, in memory of the services of Charles Lennox, Duke of Richmond, Governor of Canada, 1818-19, who died at that place on August 28, 1819. The unveiling ceremonies were carried out on August 17, 1926, arrangements being made by the municipal councils of the village of Richmond and township of Nepean.

Rideau Canal, Ottawa.—A tablet was placed on the central pillar of the bridge at Connaught Place, Ottawa, to commemorate the hundredth anniversary of the beginning of the construction of the Rideau canal, under the direction of Lieutenant-Colonel John By, R.E. The unveiling ceremonies were carried out on August 19, 1926, under the auspices of the Women's Canadian Historical Society.

Fort Wellington, Prescott.—A tablet was erected at the entrance of this historic fort, constructed in 1812 and 1813 under the direction of Lieutenant-Colonels Thomas Pearson and George R. J. Macdonell as the main post for the defence of the communication between Kingston and Montreal. The unveiling ceremonies were carried out on August 25, 1926, under the auspices of the Prescott Board of Trade and the Women's Institute.

Port Talbot, Elgin County.—A cairn and tablet were erected on a plot of land situated adjacent to the Talbot road, donated by the Talbot estate, to commemorate the historic events associated with Port Talbot. Near the cliff stood for almost fifty years the residence of the Honourable Thomas Talbot, Colonel of the British Army, who, on May 21, 1803, began there the Talbot settlement. The unveiling ceremonies were carried out on June 30, 1926, in accordance with arrangements made by the Elgin Historical and Scientific Institute in co-operation with the Ontario Historical Society.

Waterloo Pioneers, Kitchener.—A tablet was placed on a memorial tower constructed by the Waterloo Historical Society to commemorate the settlement established there in 1800 by Joseph Schoerg and Samuel Betzner, Jr., Mennonites, who arrived from Franklin county, Pennsylvania, and began the first two farms in the county of Waterloo. In the same year Samuel Betzner, Sr., took up a farm which included the site on which the memorial stands. The unveiling ceremonies were carried out on August 25, 1926, in accordance with arrangements made by the Waterloo Historical Society.



Obelisk erected near Bella Coola, B.C., to mark western terminus of Sir Alexander Mackenzie's transcontinental voyage.

Ottawa.—A tablet was erected inside the entrance to the Public Archives building in commemoration of the valour and sacrifice of Allan Rudyard Crawford, Commander and Scientist of the Arctic Expedition to Wrangel island, 1921-1923.

Ottawa.—A tablet was erected inside the main entrance to the Public Archives building, in memory of those who perished in the Canadian Arctic Expedition of 1913-1918.

Fort William.—A cairn and tablet were erected on a small plot of land leased by the city of Fort William in Heath Street park, to commemorate the historic events associated with that region.

WESTERN CANADA

Fort Walsh, near Maple Creek, Sask.—A cairn, tablet, and fence were erected on lot 1, group 17, in the northeast quarter of section 21, township 7, range 29, west of the 3rd meridian, to mark the site of Fort Walsh, an old post of the North West Mounted Police, built in 1875 by Inspector J. M. Walsh. From this post 102 officers and men maintained law and order among hunting bands of the Blackfeet, Crees, Assiniboines, Saulteaux and Sioux, until the removal of the post to Maple Creek in 1883.

Fort Macleod, Macleod, Alta.—A cairn and tablet were placed on the Public Works reserve, adjacent to Twenty-third street in the town of Macleod to commemorate the arrival of the North West Mounted Police, in October, 1874, and the building of the fort on the island immediately to the northeast of the town. Their coming brought law and order into a wild and lawless country.

Fort Saskatchewan, Alta.—A cairn and tablet were placed on the surveyed road allowance passing through river lot 8, Fort Saskatchewan settlement, to mark the sites of Fort Augustus, established by the North West Company in 1794 and Fort Edmonton established by the Hudson's Bay Company in 1795. Rivals in trade, allies in danger, these companies carried the flag and commerce of Britain from the shores of the Atlantic ocean and Hudson bay to the Pacific and Arctic oceans. Both forts were abandoned in 1807.

Bella Coola, B.C.—A large memorial shaft to which is affixed a bronze tablet was erected on Mackenzie rock, near Bella Coola, to mark the western terminus of the first journey across the continent of North America. This was made by Sir Alexander Mackenzie of the North West Company, who, with his nine companions arrived at this spot on July 21, 1793, and from which he retraced his course to lake Athabaska. A facsimile of the inscription written by himself at that time upon the rock was embedded therein in cement.

PRESERVATION WORK

Repairs to prevent deterioration of historic buildings and structures and general improvement work have been carried out on a number of sites, the following of which are the most important: Fort Cumberland, N.B.; Martello Tower, St. John, N.B.; Fort Chambly, P.Q.; Fort Lennox, Ile-aux-Noix, P.Q.; Fort Wellington, Prescott, Ont.; Fort St. Joe, St. Joseph's island, Ont.; Fort Langley, Langley, B.C.



Lake Louise, Banff National Park.

APPENDIX

The Alpine Club of Canada

THE BANFF CLUB HOUSE

(Report prepared by the Secretary)

There were many improvements made in the Club House during 1926. The principal, and most highly appreciated was the installation of electric light. The club is grateful to the Department of the Interior for its assistance and consideration.

As usual, many visits were made by strangers desirous of information concerning the mountains, their geography and their history.

The most notable climb made in the neighbourhood during the season was the first guideless climb of mount Louis. The first climb was also made of the eastern pinnacle of Castle mountain. During the season several important expeditions were undertaken by club members. Perhaps the most outstanding was the attempt on "Mystery Mountain," reached from the head of Bute inlet, B.C. The expedition led by Mr. and Mrs. W. A. D. Munday was a strenuous one. Retreat became necessary at about 10,000 feet elevation. The region has not been surveyed, but the height has been roughly estimated at twelve to thirteen thousand feet. Photographs show it to be a very fine peak, with other fine ones near. Another attempt will be made in 1927.

Mr. J. W. A. Hickson and Mr. Howard Palmer, the respective presidents of the Canadian and American alpine clubs, made a most successful expedition in the mountains of Jasper park. Several ascents were made, mount Fryatt and Throne among them. Their guides were Jean Weber and Hans Fuhrer.

Dr. J. M. Thorington, A. J. Ostheimer, and Dr. M. M. Strumia, with Edward Feuz as guide, made several ascents in the neighbourhood of Glacier lake, including mount Lyell, mount Forbes, mount Solitaire and mount Collie.

The number of guests was 294 including representatives from England, India, Switzerland, Malta, the states of California, Illinois, Minnesota, New Jersey, New York, Connecticut, Massachusetts, Missouri, Ohio, Pennsylvania, as well as from the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Quebec.

TONQUIN VALLEY CAMP

(Report prepared by the Secretary)

The twenty-first Annual Camp of the Alpine Club of Canada was held from July 26 to August 7, 1926, in Tonquin pass, near Moat lake, in Jasper park. The provincial boundary line passed through the camp so that a small portion of it was in Mount Robson park.

Across the valley the Rampart peaks, mounts Redoubt, Bastion, Geikie, Turret, and Barbican appeared as a grim and forbidding wall. Westerly, down the valley were the Amethyst lakes and the chain including mounts Clitheroe, Maccarib, and Old Horn with a glimpse of mount Edith Cavell. In addition to the main camp, two subsidiary camps were pitched to give ready access to other peaks. One was at Surprise Point and the other in Geikie Meadows.

The weather was somewhat unusual. There were no big storms but conditions were suggestive of early spring or late autumn. The air was generally raw and there was little sunshine. The new "cut off" trail was greatly appreciated. It shortens the distance from the railway considerably and affords some fine views.

Mount Geikie naturally attracted first attention from the climbers. Messrs. Drinnan and Grassi worked out a new route which was used in the subsequent ascents. Mount Redoubt was attempted unsuccessfully and another opportunity to make the ascent was not afforded. The first ascent of mount Turret was made; it is a mountain to be treated with respect as there is much rotten rock upon it. Successful first ascents were also made of mounts Bennington and Blackhorn. All these efforts were made without the assistance of guides.

Mounts Barbican and Bastion were the principal graduating climbs, though others coming within the club requirements were accepted. Mounts Majestic, Clitheroe, Old Horn and McDonnell were also climbed. A trip was made across the Bennington glacier from Surprise Point camp to Geikie Meadows camp. It was found to be difficult and strenuous—not to be recommended generally.

An outstanding event of the camp was the presentation to Mr. A. O. Wheeler of an address and purse from the members of the Club on his retiring from office, as an appreciation of twenty years' ceaseless and unselfish work as Founder, First President, and Director. Mr. Wheeler was appointed Honorary President in succession to Lord Byng.

The Swiss guides kindly lent by the Canadian National Railways were Hans and Heinrich Fuhrer. Their work was skilled and kindly and highly appreciated.

One hundred and thirty-eight were put under canvas: among them were representatives of the Alpine Club of England; the American and Swiss Alpine Clubs; the B.C. Mountaineering Club; the Appalachian Mountain Club; the Sierra Club and the Royal Geographical Society.

A71
A55

Canada, National Parks Branch

DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister

W. W. CORY, Deputy Minister

NATIONAL PARKS BRANCH

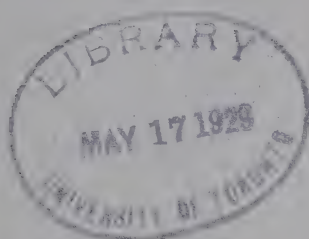
J. B. HARKIN, Commissioner

1914

Annual report

National Parks of Canada

Report of the Commissioner



YEAR ENDING MARCH 31

1927/1928

OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1929



DEPARTMENT OF THE INTERIOR, CANADA

HON. CHARLES STEWART, Minister

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NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

National Parks of Canada

Report of the Commissioner

YEAR ENDING MARCH 31

1928

OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1929

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

GENERAL

The past year was one of the most satisfactory from every point of view yet experienced in connection with the National Parks of Canada. The season itself was a favourable one with frequent rainfalls which obviated practically all danger of forest fires and relieved those in charge from the heavy anxiety of the two previous years. The weather, moreover, was seldom continuously wet so that tourist traffic was not interfered with, and the absence of dust and smoke added to the pleasure of travel and tended to increase the number of visitors. The total registrations to all parks was approximately 359,582. Of those registered, 268,362 came by motor, and 91,220 by other means of transportation.

The largest traffic was to the three-park unit comprising Rocky Mountains, Yoho, and Kootenay parks. These three reservations adjoin each other along part of their boundaries and are linked together by the loop motor highway now circling the Central Rockies. Consequently it is more convenient to treat them as one unit in compiling motor traffic figures. There are three entrances to the unit: the Leancoil gateway at the western boundary of Yoho park; the Sinclair Radium Hot Springs gateway, at the western entrance to Kootenay park; and the Kananaskis gateway, at the eastern entrance to Rocky Mountains park. Rocky Mountains park has no gateway on the west while Kootenay and Yoho parks have none on the east, so that the aggregate traffic to the three parks can be compiled only by totalling the motors entering through each of the above gates. Traffic was heaviest at the Kananaskis or eastern gateway, as the following table shows:—

<i>Kananaskis Gateway, Rocky Mountains park—</i>			
Canadian cars entering.....	25,800	Passengers.....	91,450
United States cars entering.....	1,535	Passengers.....	4,222
	<hr/> 27,335		<hr/> 95,672
<i>Radium Hot Springs Gateway, Kootenay park—</i>			
Canadian cars entering.....	6,234	Passengers.....	18,976
United States cars entering.....	2,206	Passengers.....	7,175
	<hr/> 8,440		<hr/> 26,151
<i>Leancoil Gateway, Yoho park—</i>			
Canadian cars entering.....	1,417	Passengers.....	4,750
United States cars entering.....	227	Passengers.....	663
	<hr/> 1,644		<hr/> 5,413
Total Canadian cars.....	33,451	Total Canadian passengers....	115,176
Total United States cars.....	3,968	Total United States passengers	12,060
	<hr/>		<hr/>
Total cars entering.....	37,419	Total passengers.....	127,236

A large percentage of these cars undoubtedly visited all three of the connected parks, and all 'through' travellers must have traversed two, but in the absence of any means of arriving at complete figures the original entries alone

have been given. As it is, however, these figures represent more than one-third of the total travel to all the parks, and serve to emphasize the importance of high class motor highways as a factor in modern travel for pleasure.

Waterton Lakes park, in southern Alberta, attracted 15,547 motor tourists, while Buffalo and Elk Island parks had 12,679 and 16,138 visitors respectively. Over 45,000 persons visited Point Pelee park in southern Ontario; 15,000 went to Fort Anne national park, Nova Scotia; 8,032 to Vidal Point, a recreational area in Saskatchewan; and 500 to the new Prince Albert park in the same province. Jasper park, which is accessible as yet only by railway, had approximately 12,000 visitors; Mount Revelstoke park, accessible by both rail and motor, 8,000.

It is especially gratifying to note the large percentage of Canadians among parks' visitors. Foreign visitors have in the past frequently remarked that it sometimes seemed to them that the people of Canada did not realize the outstanding character of their own great possessions. If this were ever true it can be said with truth no longer. The coming of the motor and the building of motor highways have completely changed travel conditions with respect to the national parks and in a new sense it may be said that Canadians are taking possession of their own country. Motor registrations to the five mountain parks accessible by highway show that over 87 per cent of cars were Canadian and about 13 per cent from other countries. Long distance travel by rail, on the other hand, appears still to show a majority drawn from outside countries. In Jasper park, where the railway still provides the only means of access, travel showed 42 per cent Canadians, 52 per cent United States citizens, and 6 per cent from other countries.

The completion of the Kicking Horse Trail from Lake Louise, Alta., to Golden, B.C., was one of the outstanding events of the year. It opened a new route across the Rockies and created a loop highway within the mountains of nearly 300 miles. The first section of this road—from Lake Louise to Field—was opened last year. Work on the second section—from Field to Golden—was prosecuted with vigour during the fall of 1926 and the spring of 1927 and by July 1 the road was ready for traffic. The official opening was held on July 9, the ceremony taking place on a high hill above the town of Golden in the presence of a number of distinguished representatives of the federal and provincial Governments and of local organizations. Hon. Charles Stewart, Minister of the Interior, and Hon. Dr. J. H. King, Minister of Public Health, officiated. From the date of the opening of this highway to the closing of the season over 5,600 cars went over the road in both directions and its thrilling character, particularly the traverse of the Kicking Horse pass, the descent of the west slope, and the provincial section via the tremendous Kicking Horse canyon aroused enthusiastic comments.

The new highway will form a link in the projected trans-Canada motor highway and for the completion of the Western Section only one link—between Golden, B.C., and Revelstoke, B.C.—requires to be constructed. The demand that this final gap should be bridged as speedily as possible has naturally been great and during the past year investigations were made looking to this end. Two possible routes were available, the first crossing the Selkirk range by Rogers pass, the second by way of the Big Bend of the Columbia river. The former route was considerably shorter but it presented serious disadvantages. Owing to the shortness of the season due to the heavy snowfall in the Selkirk range—in some years this is over 50 feet—it is usually late in the summer before the high passes are clear of snow. The route about the Big Bend on the other hand has a milder climate and can be kept open for from six weeks to two months longer each year. Another very important consideration was the character of the Rogers Pass district in Glacier park. As is well known this is one

of the worst sections of the Rockies so far as snow slides are concerned, so much so that the Canadian Pacific Railway was finally driven to build, at enormous expense, the Connaught tunnel, five miles in length. Moreover, approximately only six miles of the Glacier route can be said to possess scenic attractions of the first order and these slide conditions unfortunately occur where the scenery is at its best.

The Big Bend route on the other hand follows the Columbia river and passes through one of the most historic regions of the west. It is a low-level route, permitting a steady down grade from Golden (2,500 feet), to Revelstoke (1,496 feet). The Glacier route would involve a climb to Rogers pass (4,361 feet) of nearly 3,000 feet on the west and 2,000 on the east. Another argument in favour of the second route was that from Boat Encampment, at the elbow of the Big Bend, a motor highway could be constructed without much difficulty into Jasper park, thus establishing a second trans-Canada route. In view of these considerations, after carefully weighing both schemes, the department decided to lend its support to the second, or Big Bend route.



Auto Camp, Banff National Park.

New Park Established.—An important addition was made during the year to the Dominion's already fine system of national reservations by the setting aside of an extensive area in northern Saskatchewan. North of the great fertile belt devoted to agriculture there lies in this province a region of rocks, woods and water which seems almost to have been formed by nature as a special playground for man. Here are found thousands of crystal lakes, from tiny rock basins only a few hundreds of yards across to great bodies of fresh water over 50 miles long. Between, tying one to another into an intricate network of waterways, run innumerable little rivers and streams offering to canoeists and lovers of the wilderness water routes extending for hundreds of miles. The white birch, the jack pine, and the white spruce grow here in

unusual beauty and size and clothe the shores with their diverse greens. Scores of white sand beaches, shelving out gently and clean as a floor, invite one to linger and bathe. Pickerel, pike, and gray trout are found in abundance in the lakes and streams, while moose, deer, bear, and many species of game birds abound.

A generous and typical example of this interesting region has been set aside in Prince Albert park. The area covers approximately thirty townships and includes 1,377 square miles. The reserve is less than 600 miles distant from Winnipeg by motor highway and 500 miles from the international border. Its southern boundary lies about 33 miles north by west of the city of Prince Albert and is at present accessible by a secondary highway. A similar road gives access to lake Waskesiu, the most southerly of the large lakes found in the park. The western boundary is formed in part by the Sturgeon river; the eastern by the 3rd meridian as far as the 54th parallel, where the line turns easterly so as to touch but not include the waters of Montreal lake. Within the park lie three important bodies of water—Waskesiu lake, Kingsmere lake and Crean lake—as well as some forty or fifty smaller lakes. These large lakes in the northern part of the park are so closely connected by waterways that, with only a few short portages, a continuous trip can be made by water visiting them all, affording a circular canoe route of approximately 100 miles.

But aside from its own immediate attractions the park makes another appeal, irresistible to the adventurous. For its lakes and streams form a natural gateway to the great system of linked waterways which lead to the hinterland of Canada, extending like the links of a chain for many hundred miles. On the northwest these waterways finally reach the Arctic ocean, whereas those on the northeast extend to Hudson bay. Innumerable possibilities for travel are, therefore, open to the canoeist and in addition to the numerous canoe expeditions afforded within its own boundaries it seems likely that the park will become a popular outfitting and starting point for journeys to these remote regions.

The Order in Council setting aside the park was passed on March 26, 1927, and the department immediately took steps looking towards its development. Major J. A. Wood, who had been assistant to the Superintendent of Rocky Mountains national park, was placed in charge of the new park and a staff of wardens appointed. As there were few data in connection with this region the first step was the securing of definite information regarding it. The principal lakes and waterways were explored and an examination of the park and surrounding territory was made by the Commissioner of National Parks and the Acting Superintendent. Surveys were later begun for the relocation of certain sections of the road from the southern park boundary to lake Waskesiu and plans made for the improvement of other sections. A site for a public camp ground was cleared fronting the big beach on Waskesiu lake; trails were cleaned out; cabins for the warden staff improved or rebuilt; and an up-to-date fire-fighting equipment installed. It is expected that the park will be formally opened to the public in August, 1928.

Extension to Jasper Park.—By an Order in Council dated April 7, 1927, an important addition was made to Jasper park, by the extension of its boundaries to the south so as to include the great alpine region extending along the Great Divide from the Columbia ice-field to the northern limits of Rocky Mountains park. The area involved covers 980 square miles, bringing the total extent of Jasper park up to 5,380 square miles. This region represents the climax of the snow and ice deposits of the Rockies and is one of the most outstanding from the point of view of alpine features on the continent, containing five great ice-

fields and innumerable snow-capped peaks and glaciers. By the creation of this new reservation, national park conditions are now established along the eastern slope of the main Rockies for a distance of 225 miles.

In view of this considerable addition the possible revision of the existing boundaries of the Rocky Mountains and Jasper parks has been under consideration. In the more easterly sections of both parks, approaching the outer ranges, there are regions less outstanding from the scenic point of view, and this has suggested the possibility of reducing or readjusting boundary lines. Last summer, the Minister of the Interior accordingly arranged that Mr. R. W. Cautley, D.L.S., of the Topographical Survey undertake a survey of these sections of the park. His report is now receiving the consideration of the department.



Kickinghorse River and Canyon, Yoho National Park.

This widespread interest in national parks reveals the awakening of a new consciousness, the development of a national pride in the beauty of country, and a recognition of the value of these great public reservations. There is no doubt that the remarkable growth of tourist travel in recent years, due to the coming of the motor, has given national parks a new economic value which has helped to establish their importance even in the eyes of the most practical. The increasing noise and strain of city life, and the rush of traffic along all the highways of the country have given a heightened value to regions of solitude and peace. These conditions are likely to increase rather than to diminish and Canada may look forward in the next half century to increasing travel by highway to every part of the continent, and in the no distant future, by air. In the past difficulty of access has preserved many regions in their primeval simplicity. It is clear that the time is coming when this will no longer be true when even the remote Arctic may become a playground. The value of great wilderness reservations, therefore, such as are found in the national parks must

become even greater and the importance of setting them aside while there is yet time is clearly seen. But, as becomes increasingly clear to those charged with their administration, the mere setting aside of such reservations is not enough. A constant vigilance will be required to preserve their wilderness and unspoiled character, to develop a policy which will permit of the freest use but which will jealously guard what is, perhaps, their richest endowment. The time has gone by when such a movement can be considered sentimental or condemned as impractical. We are coming to see that whatever makes for general human welfare is practical in the last and best sense, and in the end is economically sound. "There is nothing," said the late Theodore Roosevelt, "more practical in the end than the preservation of beauty—than the preservation of anything that appeals to the higher emotions of mankind". If we were to think of national parks merely from the economic standpoint, from the point of view of their ability to continue to attract tourist travel, the above dictum would undoubtedly be sound. When we think of the parks in their larger values, as a means for the enlargement and betterment of life, and for the satisfaction of deeply based instincts of mankind, it becomes incontrovertible.

Distinguished Visitors.—The growing reputation of the national parks of Canada abroad is reflected in the number of distinguished names among the visitors' list. Practically every important personage or party of notables which crosses Canada now arranges to visit the national parks and usually to stay over for a few days' rest and relaxation. Among such guests last year were Their Royal Highnesses the Prince of Wales and Prince George, who with Premier and Mrs. Baldwin and the other members of the Royal party spent several days informally at Banff and Lake Louise. Earlier in the year Banff was honoured by a visit from Their Excellencies Lord and Lady Willingdon, who spent a few days there on their first trip to the West. In the autumn Their Excellencies returned for a couple of weeks' holidaying in Jasper park, and with their party enjoyed fishing, golf, and motoring.

The number of private parties, many of which travelled in special trains, was also unusually large and included a special party of delegates to the Pan-Pacific Relations Congress at Honolulu, among whom were Sir Frederick Whyte, Viscount Castlereagh, Mr. Lionel Curtis, famous founder of the Round Table, Mr. Malcolm MacDonald, the Hon. William Astor—the son of Lord and Lady Astor—the Hon. Hugh Wyndham, Sir Arthur and Lady Currie, and a number of other prominent citizens of the Empire. Other visitors were the party of British Press Representatives numbering about 120, a party of delegates from the World's Poultry Congress comprising over 100, and 300 delegates to the Triennial Congress on Mining and Metallurgy. Special parties from the United States included 400 members of the Investment Bankers' Association, travelling in four special trains; the New Outlook Magazine party numbering 200; and delegates to the Convention of Real Estate Men, who toured in two special trains. Several large special parties came also from Ontario and Quebec, including one of about 150 visitors who travelled under the auspices of Laval University, Montreal.

WILD LIFE IN THE PARKS

The success of the national parks of this continent as game sanctuaries has been firmly established during the past ten years. Their usefulness in this respect is now widely recognized not only at home but abroad and many countries are supporting the creation of similar national parks as the best means for the conservation of wild life. The new national park in the Dominion of South Africa, Kruger park, follows closely the lines of the Canadian parks, that is, the combination of a game reserve with a scenic reserve.

The Right Honourable the Earl of Onslow, President of the Society for the Preservation of the Fauna of the Empire, in his presidential address at the last general meeting of the society said:—

The whole world is becoming so speedily opened up to travellers, traders, tourists and settlers and so much uncultivated land is coming under the plough that unless some more or less drastic measures are taken to preserve the distinctive fauna it must obviously disappear entirely. . . . I am sure I should be only quoting what big game sportsmen themselves would say when I suggest that national parks are the very best sanctuaries for big game. . . . I believe that is the only way in which you can be perfectly certain they will continue to breed and multiply and so to carry on. Most of the countries have taken steps in this direction. In fact, in those countries where it has been done for some time the fact of the establishment of these parks has obtained the general approval of the people so that it is really a method of the preservation of animals which can be considered as thoroughly satisfactory. It is a policy that among other things is financially sound.

While no complete census of the big game now in the mountain parks can be arrived at, a steady growth in many species from year to year is apparent to even the casual observer. Sheep and goat are extending their ranges in many places and larger herds are continually seen. Black bear are also increasingly numerous and grizzly are reported more frequently in the remoter areas. Elk, which were introduced into both Rocky Mountains and Jasper parks, are noticeably spreading out in both reserves. Young elk seem to be in particularly good condition. Moose are reported increasing in Waterton Lakes, Kootenay, Banff and Jasper parks. Caribou are found only in Jasper park. A small band of these interesting animals came into the Tonquin valley some years ago from British Columbia. This herd has very considerably increased its numbers and in the past few years other herds have come in along the northern boundary and are also apparently making that region their habitat.

During the year a request was received from the province of British Columbia for Rocky Mountain sheep for restocking. In view of the satisfactory condition of the park herds the department decided to donate fifty sheep from the Rocky Mountains park for this purpose. The animals were captured by the park wardens and successfully shipped without loss.

Government Buffalo Herd.—The condition of the Government buffalo herd in the Buffalo national park, Wainwright, is very satisfactory. Thinning by means of annual shipments to the north and the slaughter of an additional number for sale has reduced the herd to numbers which the park is well able to support. The animals are now in prime condition and show a large percentage of young and vigorous stock. In the autumn a contract was made with a Calgary packing company for the slaughter of 1,000 animals, and from the meat and the hides a satisfactory revenue was obtained.

Three superb buffalo robes, mounted as floor rugs, from the Government herd at Wainwright park, were presented by the department to Their Royal Highnesses the Prince of Wales and Prince George, and to Premier Baldwin, as souvenirs of their Canadian trip. The gifts were accompanied by a small brochure bound in buffalo leather, with hand coloured illustrations of Indian designs, relating the story of the growth of the herd and Canada's success in the restoration of this interesting native species.

Antelope Herd.—The Government antelope herd in the Antelope reserve, Nemiskam, Alta., which had reached the gratifying number of 450 since the creation of the park in 1915, suffered a severe loss during the winter. On December 27 last during a blizzard the antelope drifted against the fence, apparently bunching together so that their weight broke through the centre wires of the 8-foot fence and all but nineteen of the animals drifted away during the storm. Every effort was made to recover them during the winter but as the weather in the succeeding months was unusually mild, food was plentiful

and only about 152 were secured. Fortunately 110 of these were does. The antelope is one of the most difficult native animals to drive or capture but it is hoped that next winter, when food again becomes scarce, a number of those which escaped will return to the park of their own accord in quest of food.

Fish.—Through the valuable assistance and co-operation of the Department of Marine and Fisheries, the restocking of lakes and streams in the parks, was again carried on. The above department has now two hatcheries in Rocky Mountains park, the main hatchery at Banff and the subsidiary one at the Spray lakes.



Sunset-Waskesiu Lake, Prince Albert National Park.

Early in the season about forty lakes and streams in Rocky Mountains park were stocked with cut-throat trout fry, 747,000 fry being liberated. Brown trout fry were also placed in the waters of Waterton Lakes park and in the Bow river. In July 71,840 eyed cut-throat eggs were buried in Marvel lake, Spray river and Leman lake and in August 205,800 cut-throat fry were liberated in these waters and in the Spray lakes and Bryant creek. Lake O'Hara was also stocked with 12,000 cut-throat fry.

In Waterton Lakes park the usual shipments of fry were received through the kindness of officials in Glacier national park, Montana, and 13,000 were placed in the Waterton lakes and tributary streams. The difficulty of transplanting fry from Banff to Waterton Lakes park made it seem desirable that a small hatchery should be established in the latter park. By an agreement therefore between this department and the Department of Marine and Fisheries a small hatchery was erected at the Waterton townsite.

In Jasper park, under the direction of the Biological Board of Canada and following out the recommendations submitted by them as a result of their two years' investigation of some of the principal waters of the park, small aquatic plants for fish food were placed in sheltered, shallow bays in lakes

Mildred, Annette, Edith, and Beauvert. Under the supervision of Mr. J. E. Martin, Superintendent of the Banff hatcheries, 15,000 brown trout fry were placed in lake Mildred, 10,000 in lake Edith, 10,000 in lake Annette, and 5,000 in Big Trefoil lake. To give the fish a chance to develop it was decided to close these lakes for two years.

The restocking of Maligne and Medicine lakes and the connecting section of Maligne river had also been strongly recommended by the Board, and appeared very desirable both as a biological experiment, since this unit is now barren of fish life, and on account of the increasing importance of these lakes as tourist attractions. The difficulty of transporting fry the long distance from Banff—the nearest fish hatchery—to Jasper and then to Maligne lake presented a formidable obstacle and the fishery experts agreed that a small hatchery at Jasper would be essential before the work could be undertaken. In December last the Dominion Inspector of Fisheries for Alberta visited Jasper park and went over the ground with the superintendent and decided to convert an unused construction cabin into a temporary hatchery. A water service was laid to the building and ten troughs installed. Later 250,000 eggs of speckled trout were shipped to Jasper and cared for by park officials during the remainder of the year. In June next these will be transported to Medicine and Maligne lakes and liberated there. The outcome of this experiment will be watched with much interest both by the fishery experts and the National Parks of Canada.

HIGHWAY CONSTRUCTION IN PARKS

Highway construction during the year included a stretch of three and a half miles on the highway from Jasper along the Athabaska valley to the eastern boundary of the park. This road will form a section of the projected Jasper highway from Edmonton. The distance now completed in the park is thirty-four miles.

A final section about a mile in length was constructed on the Mount Revelstoke highway, completing the road from the park entrance to the summit of the mountain according to the original plan. On August 17 the road was opened by His Royal Highness the Prince of Wales, who stayed over at Revelstoke during his brief trip across Canada for the event.

In Waterton Lakes park surfacing work was done on the Akamina highway and the road finally completed from park headquarters to the summit of the Akamina pass. In Elk Island park work was begun on the construction of a road from the north gate to Sandy Beach and from Sandy Beach to the south end of the lake and thence to headquarters. In Yoho park two miles of new road were constructed between Field and the Natural Bridge and the remaining mile widened and improved to meet the demands consequent upon the opening of this park to motor travel. On the Banff-Windermere highway widening and improvements were carried out at various points and the road generally brought up to a condition where it is comfortably wide and safe throughout.

In Jasper park a further experiment was made with the use of tar sands from the McMurray region and a stretch of 2.13 miles was surfaced. This section was completed by the middle of August and its condition during the rest of the season was very satisfactory. The total area surfaced amounted to 20,771 square yards and the cost of the work to about \$1.26 per square yard. The material gives an even and dustless surface and a very great point in its favour is that during the wet weather there is no tendency for cars to skid. As in the previous year the Department of Mines supervised the operations at the quarry at McMurray, looked after the transportation of material and operated a heating and mixing plant for the manipulation of the sand. The heating and mixing of the sand for road surfacing presented no difficulty

although the plant constructed and operated at Jasper represented a radical departure from the generally accepted methods. Its outstanding features were the low cost of construction, simplicity of operation, and low operating costs.

Particular interest attaches to this stretch of road since it represents the first experiment in the commercial utilization of these Canadian bituminous sands. The behaviour of this pavement and the success of several small test pieces put down in the city of Edmonton in 1915 now make it clear that these bituminous sands can be used for the construction of the highest class of asphalt wearing surfaces. They indicate that the bituminous sands of the McMurray region constitute one of the great natural resources of Canada, and a gratifying result of the investigation is that it renders available data which would enable capital to undertake the development of these sands with the minimum of preliminary expense and delay.

The following table gives the present mileage of roads, trails and telephone lines maintained in western parks:—

Park	Number of miles		
	Roads	Trails	Telephone lines
Kootenay.....	63	78.0	64.0
Revelstoke.....	18	26.5	17.25
Rocky Mountains.....	145	747.0	179.5
Jasper.....	84	623.75	304.50
Yoho.....	55	154.0	40.50
Glacier.....	9	113.0	7.0
Buffalo.....	11	34.50	.....
Elk Island.....	6	.....	.....
Waterton Lakes.....	34	162.75	56.50
Totals.....	425	1,939.50	669.25

New Motor Campsite, Banff.—The reacquisition by the Canadian Pacific Railway Company of the Banff golf course and the plans for its enlargement and reconstruction involved the taking over of the Mount Rundle motor campsite, at the junction of the Bow and Spray rivers. Several sites for a new camp were proposed but after consideration of their various advantages a location on Tunnel mountain was decided upon, which combined fine views, good air, freedom from mosquitoes, ample shade and superior natural hygienic conditions. A plan for the area was prepared, the necessary clearing was undertaken and the site laid out in lots. A water supply, electric light, shelters, community stoves, washrooms and other conveniences necessary to an up-to-date camp will be provided as soon as conditions permit in the spring.

FIRE PROTECTION

Owing to the favourable season there was practically no loss from forest fires. A few outbreaks were reported but they were all small and were easily got under control. Each year new equipment is added to the fire-fighting service and at the present time all the parks are reasonably well equipped from this point of view. There are now 66 portable pumpers, 31 light pumpers, 4 railway speeders, and 4 railway velocipedes in use in the different parks.

TRAIL RIDERS OF THE CANADIAN ROCKIES

The Trail Riders of the Canadian Rockies held their annual meet in Rocky Mountains park August 5-7. This organization which was started to encourage trail riding in the Rockies, now numbers over 800 members. Of these approximately 100 have qualified for the gold button signifying that they have ridden

2,500 miles or upwards in the mountains; 75 have ridden 1,000 miles or upwards; 125 have ridden over 500 miles, and approximately 350 over 100 miles.

The wide appeal of the organization is shown by the international character of its membership list, which includes many well-known artists, writers and travellers, not only from Canada but also from the United States and overseas. The annual ride, which usually follows trails unbeaten by the regular tourist, is helping to bring to notice some of the beautiful but lesser known parts of the parks and enabling many people to enjoy this most delightful of all ways of establishing an acquaintance with the peaks. The route selected for last year's ride was from Sundance canyon, near Banff, via Brewster and Allenby creeks and Assiniboine pass to the Assiniboine camp. From this point a new trail opened by the Marquis degli Albizzi and the Duke of Leuchtenberg was followed to lake Magog and mount Assiniboine. Nearly sixty members



Castleguard Falls and Camp in Alplands Columbia Icefields, Jasper National Park.

took part. At the annual Pow-wow, held at Sunshine camp, the Lake of the Hanging Glaciers, B.C., was selected as the objective for next year's ride. Return was made by the Valley of the Rocks, the historic Simpson pass—first travelled by Sir George Simpson in 1841—and Healy creek.

RECREATIONS

Winter Carnivals.—The winter carnivals held at Banff and Revelstoke last season were both highly successful and attracted a larger number of visitors than ever before. This was due not only to the increasing interest which Canadians as a whole are taking in winter sports but also to the growing realization of the unique enjoyment and attractions offered by a winter holiday in the parks. Conditions at Banff for a good part of the winter are practically ideal. The absence of wind, the dry air and the abundant sunshine serve to tone the physical system and make outdoor exercise a delight. For people who become debilitated through indoor confinement or the smoke-darkened air of our large cities during the winter, an outdoor holiday in the Rockies would afford great benefit. Canadians were somewhat late in recognizing the value of these great regions from the scenic point of view and they have perhaps as yet scarcely awakened to their usefulness from the health point of view. Dr. C. W. Saleeby, F.R.S.C., the well-known British scientist, declared that it seemed to him that "the cold and sun of Canada, playing upon the well-fed, produce a splendour of physique, a low rate of disease, an abundant energy of mind, a *joie de vivre*, or national euphoria, which must rejoice every lover of mankind." Referring to Leysin in the Alpes Vaudoises, the site of a famous sanatorium for sunlight treatment, he says:—

In or near such a spot as Banff, for instance, in the Canadian Rockies, all the advantages of Leysin and more could be reproduced on any scale. My own observations in Canada, and what I saw at Leysin, lead me to believe that we should find a friend in the clear, cold air. It stimulates. The nervous system, the muscles, the processes of metabolism respond to it. Light and cold seem to be the ideal combination. Perhaps the real merit of altitude resides not in the higher proportion of ultra-violet rays, but in the coolness of air combined with the light.

Indian Days.—The Indian Day celebrations at Banff were carried out most successfully last year and attracted greater attention than ever before. Several thousand attended the sports and witnessed the native games, competitions, and dances. The full dress procession, with the Indians on horseback in full regalia, which is now one of the most picturesque Indian displays that can be seen on the continent, was nearly a mile long and the beautifully decorated costumes and trappings, many of them handed down for generations, aroused the admiration of all spectators.

Highland Festival.—In September a Highland Festival was held at Banff for the first time, under the auspices of the Canadian Pacific Railway Company. It included a program of Scottish dances, games, and music in which a number of outstanding artists took part and drew competitors from many parts of the Dominion. The festival was so successful that it is understood it will be made an annual event in connection with the Banff Springs hotel.

Banff Golf Course.—In July last the Banff golf course was taken over by the Canadian Pacific Railway Company and plans were immediately made for a complete reconstruction of the course with a view to bringing it up to the standard of the best in America. Mr. Stanley Thompson, the architect of the Jasper links, was commissioned to prepare the new layout and submitted designs which called for practically a new course. Work was at once begun on the first nine holes and good progress made. The course will have three

sets of tees, for the beginner, average and expert player respectively. Holes 1, 2, 3, 4, 5, 13, 14, 15, 16, 17 and 18 will be in full view of the windows and terraces of the Banff Springs hotel and each fairway will afford a delightful vista.

SUPERINTENDENTS' CONFERENCE

In January the first conference of park superintendents was called at Ottawa and attended by the superintendents and acting superintendents of all the western parks. The meetings took the form of a round table discussion on the principal phases of park administration and protection viewed from the standpoint of those actually engaged on the ground. The mutual exchange of views and experiences was very useful and should lead to a greater efficiency in the administration of the parks. At the conclusion a number of resolutions were drawn up relating to the handling of tourist affairs, training of wardens, protection of game, maintenance of roads and trails, handling of tourist travel, the administration of townsites, as well as a uniform control of the parks generally.



Mons Glacier, Alplands between the Head of Glacier Lake and Mons Glacier, Jasper National Park.

PUBLICITY

The value of adequate publicity as an indispensable adjunct to the development of the parks has been kept in mind and there has been built up a series of publications giving information concerning each of the main parks and its attractions. During the year two new booklets were prepared, one, *The Kicking Horse Trail*, descriptive of the new highway from Lake Louise to Golden, the other, *Prince Albert Park*, a descriptive guide to the new park in Saskatchewan. A revised edition of *The Banff-Windermere Highway* was also prepared and sent to press and the compilation of material for the forthcoming *Guide to Jasper Park* completed. In addition to these more comprehensive publications

the need for small folders which will give information in a compact form to visitors has been much felt. A beginning was made this year by the preparation of a small guide covering the motor highways and principal attractions of Banff, Yoho, and Kootenay parks. A mileage card showing distances between the parks and provincial points was also compiled and printed. Total distribution of pamphlets numbered 144,259.

A number of new movie films of the different parks and of wild life were secured. These were prepared and titled by parks officers and were largely distributed. The public lecture work was continued by the Director of Publicity and the official lecturer. The total number of lectures given was 147, estimated attendance 40,360. Moving picture reels shown at Ottawa totalled 1,368; outside, 498. Reels loaned numbered 451. Several hundred negatives and slides were added to the photographic library. During the year 14,222 prints were distributed, 1,129 enlargements, and 525 transparencies. Lantern lectures loaned numbered 79. Material for 430 articles and lectures was also prepared and sent out to writers and speakers, and 389 engravings were loaned.

REVENUE

Revenue collected by the National Parks of Canada during the fiscal year ended March 31, 1928, exceeded by \$36,633.46 the amount collected in 1926-27. The following statement shows the net increases and decreases from the different sources:—

Source	1927-28	1926-27	Increase	Decrease
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Rocky Mountains park.....	143,457 64	137,307 00	6,150 64	
Jasper park.....	32,808 22	20,368 20	12,440 02	
Buffalo park.....	80,121 56	64,045 50	16,076 06	
Antelope park.....	576 00	642 00		66 00
Glacier park.....	143 16	170 25		27 09
Waterton Lakes park.....	6,040 73	6,012 80	27 93	
Fort Anne park.....	11 25	15 00		3 75
Yoho park.....	3,686 73	2,338 17	1,348 56	
Kootenay park.....	8,111 20	7,030 60	1,080 60	
Point Pelee park.....	89 00	491 82		402 82
Brereton Lakes park.....	52 00	30 00	22 00	
Elk Island park.....	181 50	218 00		36 50
Historic sites.....	30 00	34 25		4 25
Fines and forfeitures.....	2,596 43	2,636 97		40 54
Migratory birds.....	89 25	68 00	21 25	
Lake Florence sanctuary.....	55 00	40 15	14 85	
Miscellaneous.....	2 00	56 00		54 00
Prince Albert park.....	38 50		38 50	
Vidal Point park.....	48 00		48 00	
Totals.....	278,138 17	241,504 71	37,268 41	634 95

Net increase.....\$ 36,633 46

THE NATIONAL PARKS OF CANADA—THEIR NUMBER AND AREA

SCENIC PARKS

<i>Alberta—</i>		
Jasper park.....	5,380 square miles	
Rocky Mountains park.....	2,751 "	
Waterton Lakes park.....	220 "	
<i>British Columbia—</i>		
Glacier park.....	468 square miles	
Kootenay park.....	587 "	
Mount Revelstoke park.....	100 "	
Yoho park.....	476 "	
<i>Saskatchewan—</i>		
Prince Albert park.....	1,377 square miles	
Vidal Point park.....	17.2 acres	
<i>Ontario—</i>		
Point Pelee park.....	4 square miles	
St. Lawrence Islands park.....	165 acres	

ANIMAL RESERVES

Buffalo park, Wainwright, Alta.....	197.5 square miles
Elk Island park, Lamont, Alta.....	51.0 "
Nemiskam Antelope park, Nemiskam, Alta.....	8.5 "

HISTORIC PARKS

Fort Anne, Nova Scotia.....	31 acres
Fort Beauséjour, New Brunswick.....	59 "

Three additional areas—Waweskesy park and Minissawok park for the preservation of antelope, and Fort Howe park, St. John, N.B.—have also been set aside but have not yet been developed.

DETAILED REPORTS OF PARKS

ROCKY MOUNTAINS PARK

Travel to Rocky Mountains park was the heaviest in the history of the park. Rail travel showed a considerable increase and motor traffic was 50 per cent greater than the previous year. The total number of visitors was 166,521, or an increase of 29,858 over the previous year.

No registrations are made of motorists entering Rocky Mountains park on the west. Registrations at the Kananaskis, or eastern gateway, however totalled 53,363 cars, eastbound and westbound, or an increase of 15,405 over the preceding year. The number of passengers carried was 95,672 or 26,890 greater than in 1927. Of these 91,450 were Canadians and 4,222 from the United States.

An idea of the growth of travel to this park is shown by the figures for the past five years:—

1923-24.....	94,930
1924-25.....	104,241
1925-26.....	124,749
1926-27.....	136,663
1927-28.....	166,521

In many cases monthly travel now exceeds the total yearly travel of a few years ago.

A new record for the number of cars using the Banff-Kananaskis highway in one day was established on July 3, when 1,533 cars passed through the Kananaskis gateway. A new record for week-end travel was established on July 1-3 with 3,731 cars. The previous week-end record was for May 22-24 with 1,937 cars.

The growth of travel has naturally been reflected in a larger use of all park facilities, which in some cases were placed under a heavy strain to meet the demands laid upon them.

This was particularly true of the two Government bath houses at the Hot Sulphur springs. At the Cave and Basin springs a total of 66,233 bathers passed through the turnstiles while on more than one occasion 1,500 bathers were accommodated in one day. In the past nine years there has been a growth of approximately 85 per cent in the use of these springs. The number of bathers rose from 35,969 in 1919 to 66,233 in 1927. Records for bathers in one day show a rise from 945 in 1921 to 1,611 in 1927.

The number of bathers at the Upper Hot springs which are used more for therapeutic than recreational purposes, was also the largest recorded. Records show a growth of almost 100 per cent in the use of these springs in the past nine years.

The growth in motor travel involved also a much larger use of the public campsites, particularly of the Mount Rundle Camp at Banff. This camp was

opened in 1923 and has shown a steady growth in use. In 1923 there were 1,828 cars carrying 7,469 people registered at the camp, and 1927 the numbers had increased to 6,017 cars with 21,620 people.

Museum, Zoo and Animal Paddocks.—A lively interest was manifested by tourists in the Banff Museum and its exhibits of native animals, plants and geological specimens. Over 30,000 persons signed the register as compared with 15,000 last year. No record is kept of the number of persons entering the zoo, but it is clear from the crowds who visit it that it is one of the major attractions of the park. The walks, lawns and cages were kept in good condition and elicited favourable comments from many visitors. The total number of animals now engaged is thirty-three as follows: 1 polar bear, 2 grizzly bears, 3 black bears, 1 cinnamon bear, 2 mountain lions, 1 bobcat, 4 timber wolves, 4 coyotes, 1 wolverine, 1 badger, 2 marten, 2 gophers, 1 marmot, 1 Canada lynx, 2 great horned owls, 1 peacock, 3 Canada geese, 1 golden eagle.



Golf Course, Waterton Lakes National Park.

The animal paddocks, containing the exhibition herd of buffalo, elk, sheep, and goat, are a constant source of attraction. This year 89,841 persons visited these enclosures, as compared with 65,585 persons in 1926-27. The animals at present number: buffalo, 19; elk, 18; angora goats, 7; rocky mountain sheep, 5; rocky mountain goat, 1; horned sheep, 4; yak, 5.

Licences.—The growth in the general business of the park is well indicated by the variety and number of the licences issued. In the past year these totalled over 35,000, including 18,040 transient auto licences; 540 grazing; private auto, 515; motor cycle, 440; and park season auto, 298.

Fire Protection.—Owing to the favourable season there were few forest fires. Five outbreaks occurred but none of them became large, the whole area burned over being less than half an acre. The total cost of extinguishing these fires, including warden labour, was \$104.73.

The Banff Fire Brigade, which consists of a voluntary staff of 25 men and officers, responded to 14 alarms. The total loss was approximately \$1,750.

Mosquito Control.—The work in connection with the control of mosquitoes in the vicinity of Banff was carried on as in former years, through the assistance of the Entomological Branch, Department of Agriculture. Owing to frequent rains, often followed by extremely warm days, conditions were unfavourable and necessitated careful and continuous work. It is gratifying to note that in spite of these difficulties the nuisance was kept well in hand.

Accommodation.—The large new wing of the Banff Springs hotel built by the Canadian Pacific Railway Company to replace the old north wing which was destroyed by fire was opened for the 1927 season. The new addition is of fire-proof construction throughout and greatly enlarges and improves the appearance of this fine hotel, which now takes an outstanding place among the most luxurious hotels either on this continent or abroad.

Banff now possesses in all 12 hotels with a total of nearly 1,000 rooms and accommodation for approximately 1,600 persons per day. In addition there are 400 private houses renting rooms and 160 tent houses.

As described on page 84, a new motor campsite was laid out on Tunnel mountain and a sufficient area set aside to accommodate about 4,000 persons per night.

JASPER PARK

Development work in Jasper national park was carried on steadily with a view to meeting the demands created by the increasing use of the park. In Jasper townsite a number of improvements were made to the principal streets, new sidewalks laid and the boulevard on Connaught Drive planted with indigenous shrubs and trees. All the principal streets were given a coating of road oil to keep down the dust. The water service was extended to serve four new blocks. The town is now fairly well equipped with hydrants. These have a pressure of eighty pounds and with the completion of the service next year the town should have adequate protection in the event of fire.

The new dam at Cabin lake was completed. This dam raises the level of the lake three additional feet and should provide an ample supply of water for some years.

Several substantial buildings were added to the townsite, the total new construction being estimated at \$80,000. Extensions and new buildings at Jasper Park lodge totalled approximately \$240,000. A log chalet for the use of tourists was also erected at Maligne lake.

The roads and trails were maintained in exceptionally good condition and a number of improvements and extensions made to the system. The Mount Edith Cavell highway was improved by additional gravel surfacing and by the construction of a strong guard rail along the full length of the Portal Creek hill. The first 11 miles of the highway were also coated with road oil. At the terminus of the Cavell highway an additional mile of new road was built and a large park area cleared for the use of cars near the foot of the moraine. This brings the highway practically to the foot of the glacier. Trails to good view points and to the nose of the glacier were also constructed. Work was commenced on the construction of a tote-road, suitable for wagons, from Smoky Hollow to the bridge over the Whirlpool river. As there is already a rough road from the Cavell highway to Smoky Hollow, this now provides a wagon road from Jasper as far as the Whirlpool. In case of emergency such as a forest fire along the Whirlpool or upper Athabaska, this would be of great assistance. About two and a half miles were also added to the tote-road to Medicine lake, making it possible for cars to travel from Jasper practically to the lake. This

not only shortens the trail journey for tourists who desire to visit Maligne lake but is also a great convenience for the teaming of supplies and for fire protection purposes.

Portal Creek trail, which affords a new route to the Tonquin valley, was completed and a number of improvements made on the Meadow Creek trail which is usually used as a return route. Work was continued on the new trail up the Smoky River valley to the warden's cabin at Smoky river, and at the end of the season 19 miles of new standard trail had been completed. A large bridge 90 feet long was built over Bess creek. A site for a motor camp was cleared adjacent to the Jasper highway, about one and a half miles north of the town.

The forest telephone system, which now totals 277 miles of line was inspected and kept in good condition. A new line was built from Hoodoo creek to Smoky River cabin, a distance of 26 miles. A great improvement was made by extending all forest lines from the Administration building to the cabin of the supervising warden. This enables all wardens to be in touch at any time of the night or day with headquarters.

WATERTON LAKES PARK

The opening last summer of the large Prince of Wales hotel built by the Great Northern Railway marked the beginning of a new era for Waterton Lakes park. This provision for high class tourist trade had an immediate effect upon travel and greatly increased the number of foreign registrations. Unfortunately the wet season impaired the condition of the connecting roads and interfered considerably with traffic. As it was, however, 14,134 visitors registered at the park of whom 11,374 were from Canada, 2,734 from the United States, 22 from transatlantic and 4 from transpacific points. The total number of motor cars entering the park was 4,823.

The wet weather also interfered with play on the golf links until the middle of July, but from that time to the end of the season the total number of rounds played was in excess of the previous year. Marked improvements were made in the townsite by the planting of trees and flower beds and the grading, gravelling, and oiling of the streets. The entrance roads were also widened and otherwise improved. A blacksmith's shop, storehouse and wagon-shed were erected at headquarters and improvements made to the administration building. The growth of the townsite has been very marked in the last few years. Buildings erected last season included a number of private residences, a business block of a good type, a new barracks building for the Royal Canadian Mounted Police and a new Anglican church. After the main building of the Prince of Wales hotel was completed, construction was begun on a large building for the accommodation of the help.

Trails.—Work was continued on two trails which will greatly extend the opportunities open to the tourist. The new Bosphorus trail was completed by the construction of three additional miles. This trail follows the east shore of Waterton lake and joins the trail to Hell Roaring canyon. Two miles more were also built on the Hell Roaring Canyon trail and 2½ on the trail to mount Carthew.

Game.—Nearly all species of big game are still increasing in the park. Mule deer, mountain sheep and goat, elk, and both black and grizzly bears are seen in larger numbers. Moose have been reported in the Belly River district and white-tailed deer were seen for the first time near Cameron lake. Marten and beaver are also plentiful.

Fishing.—Fishing, which is one of the great attractions of the park, proved better than ever this season, excellent catches being reported, especially from

the Bertha Lake district. As in former years valuable donations of fry were received from the Glacier national park, Montana. They comprised 13,000 eastern brook trout fry which were distributed in Hell Roaring creek and Cameron creek.

KOOTENAY PARK

Kootenay national park also had a very successful year. Owing to the heavy snowfall on the Vermilion and Sinclair summits, the Banff-Windermere highway did not open until the first of June. Travel, however, began almost immediately and during that month 1,544 cars went over the road.

The Banff-Windermere highway was in unusually good condition throughout the whole season. Improvements and widening were carried out at various points, particularly between Kootenay crossing and Vermilion summit. Clearing was done on the areas adjoining the highway which were burnt over in the bad fire of last year, and grass sown. The moist season allowed the seed to get a good start and it is evident that the clearing is not only improving the scenery by permitting longer vistas but is also providing additional pasture for game.

While Kootenay park is primarily a highway park created to preserve national park conditions throughout the region traversed by the Banff-Windermere highway, as time goes on and the territory within its borders is more thoroughly explored, it is becoming evident that it possesses many features of special interest to tourists. The number of visitors who remain over in the park and undertake hiking or pony trips is steadily increasing. Last year two new trails were constructed, one up Prospector's valley about eight miles in length, and the other from the highway at Hawk creek to Floe lake, a distance of seven and a half miles. The latter will provide an interesting one-day excursion. The trail is a steady ascent but it affords fine views, and the long cascade of Floe creek is very picturesque.

The number of bathers at the Government swimming pool and Radium Hot Springs from April 1 to October 15 showed a very large increase. These included, adults 12,189; children 2,040; total 14,229; an increase of 3,345 over the previous season.

The most important project was the building of the new baths at these springs. The old building, which was small and of temporary construction, had proved inadequate for present demands. The new building, which was begun in September, will contain dressing rooms, lockers, showers, and rest rooms and an enlarged swimming pool. It is expected that construction will be completed in time for the opening of the tourist season of 1928.

YOH0 PARK

The most important event in Yoho park was the completion of the Kicking Horse Trail and the consequent throwing open of the park to through travel. As soon as the weather conditions permitted in the spring, large crews of men were put to work on the completion of the western section of the new highway a distance of 21 miles from Field to Leachcoil. The provincial Government also rushed operations on the final section from Leachcoil to Golden and by the first of July the road was completed and ready for travel. The official opening took place on July 9 and through travel at once began. Between July 1 and October 30, 5,638 cars eastbound and westbound, carrying 18,541 persons, passed through the western gateway. Of these 4,640 were Canadian cars carrying 15,612 persons, while 998 were foreign cars carrying 2,929 persons.

The increased motor traffic due to the completion of this trunk road placed a heavy strain upon the existing roads to the Yoho valley and Emerald lakes. Practically every car entering the park visited these two popular points. Work on the widening of the Yoho road was continued and practically the whole

distance, with the exception of about a mile, was brought up to a standard width of 18 feet. Additional widening was also carried out on the Emerald Lake road and a parking space for cars provided at the terminus of the road.

The increased motor traffic created also an immediate demand for camping accommodation. At the Kicking Horse campsite, three and one half miles east of Field, early in the year shelters with stoves, lavatories, etc., were erected. On July 1 a caretaker was appointed to handle the crowds and care for the cleanliness and sanitation of the camp. He remained on duty till September 6. During this period 1,483 cars carrying 5,418 persons camped overnight. As the facilities provided had been at times severely taxed it was decided in the autumn to erect an additional shelter building and to extend the water supply service.

A second campsite was also laid out on the western end of the road about six and one-half miles from the west boundary of the park, near the Kicking Horse river. This camp, which will be known as the Chancellor Peak campground, was also equipped with shelters and the other necessary conveniences.



Seven Sisters Falls, Yoho National Park.

During the summer, following the opening of the Kicking Horse highway, the gate-keepers at the western entrance were placed in temporary quarters but in the autumn a substantial and attractive gateway building was erected. The structure is of stucco and contains, in addition to other quarters, a rest room and facilities for the use of the public.

The streets of Field were kept in good condition and economically treated with fuel oil waste, supplied by the Canadian Pacific Railway Company free of charge. Streets and sidewalks were improved with mine tailings, a material which makes a very satisfactory surface at slight cost.

Game and Fish.—No marked increase in game was apparent in Yoho park during the past year. It is believed this may be partly due to the severe forest fires of the previous summer when large numbers of animals apparently became terrified or were driven by the fire out of the park. Moose, too, have suffered heavily in the last two years. A considerable number have been killed by railway trains and others have wandered beyond park boundaries where they were shot by hunters.

Fishing conditions are improving in this park each year. During the past season all anglers reported excellent catches. The only re-stocking was done at lake O'Hara in which 12,000 rainbow trout fry were placed in September.

GLACIER PARK

The closing of the old Canadian Pacific Railway hotel, Glacier House, a couple of years ago deprived Glacier park of practically its only tourist accommodation and consequently reduced tourist travel. The park officers, however, have availed themselves of the quiet seasons to put the roads and trails into first class condition. Last year one new trail about three miles in length, was constructed up the Beaver valley running from the Beaver Valley trail up to the Prairie hills. This trail, which will be especially valuable for fire protection purposes, gives access to a wide open country on the Prairie hills from which the warden may overlook the whole Beaver valley.

Further development work at the Nakimu caves was carried out by the caretaker and assistants. Work was continued on the opening up of the passageway between No. 4 entrance and the exit near Beaver falls and practically completed. At one point a perpendicular rise of eighty feet was encountered which gave considerable difficulty. By building a flight of steps up to this level, however, the passage was continued and in future the tourist will be able to travel through No. 4 cave, the most extensive of the series, without having to retrace his footsteps. A survey of all the caves was made in the autumn by Mr. C. M. Walker, D.L.S., and his report has furnished valuable information from which a map can be made for the convenience of tourists and which will assist greatly in further developments.

MOUNT REVELSTOKE PARK

The motor highway, 18 miles in length, from the park gateway at the base of mount Revelstoke to Balsam lake on the summit was completed last year and officially opened by His Royal Highness the Prince of Wales on August 17. This road climbs back and forth across the face of mount Revelstoke ascending 4,515 feet in the course of the 18 miles. The views from the higher elevations are extremely fine. As a result of the completion of the road, traffic to the park was greatly increased. The building of a provincial highway through Eagle pass to Revelstoke has now established through connections with the Coast, and last year a large number of western cars from both Vancouver and the United States came to the park by this route. In view of this increasing travel it was decided to undertake new development work giving access to some of the chief places of interest. Two new trails were constructed, one running along the western slope of the mountain towards the head of Six-mile creek, the other, from Greely creek depot towards the slopes of Clach-Na-Cuddin, which will assist visitors in reaching the ice-field.

In connection with their fire-protection service, with the consent of this branch, the Forest Service erected a lookout station at the summit of mount Revelstoke and maintained a warden there during the summer months. The park headquarters was connected by telephone with this station, which will afford both the national parks and the forest reserves valuable protection from fire.

The annual ski carnival took place in the park under the auspices of the Revelstoke Ski Club in January. The ski-jumping contests which provide the principal feature have become outstanding on the continent and attract some of the best skiers from Canada and the United States. Last year both snow and light conditions on the hill were perfect and hundreds of spectators were afforded a thrilling exposition of this sport at its best. Nels Nelson, world's champion,

won the Class "A" event. While he did not exceed his previous world's record of 240 feet his splendid attempts to surpass it may perhaps never be equalled in the annals of skiing. Bob Linburne, a seventeen year old Revelstoke boy, won the Class "B" contest for the longest standing jump, with a perfect jump of 183 feet, surpassing the present world's record by 35 feet. Bob Crowle, in junior Class "E" made a splendid jump of 64 feet, beating the previous record of 43 feet held by Master Arthur Johnson. Ernie Field, of Revelstoke, won the gruelling cross country race of 7 miles, his time being 45 minutes and 5 seconds.

During the year a number of improvements were made by the National Parks of Canada on the ski hill. The long trestle take-off above the main jump was reconstructed and the angle of the incline increased. A new judge's stand was also built.

BUFFALO PARK

The shipments of buffalo to the Great Slave Lake region were, as in the two preceding years, a matter of first importance in Buffalo park. In the late autumn, during the round-up of the beef-stock, approximately 1,100 yearling calves were cut out of the herd and placed in a separate enclosure. During the winter these animals were fed and watered daily, and they came through in splendid condition. Early in April the usual spring round-up took place and approximately 800 more young animals were cut out and corralled.

On June 6 the first train load left Wainwright for the north. Additional shipments followed on each succeeding Monday up to the end of July, until a total of 1,940 buffalo had been sent forward. The animals were all sturdy one-, two-, and three-year-olds and, as in former years, the loss in corralling, loading and shipping was very small.

Aside from the normal decrease due to age there was practically no loss in the main buffalo herd during the winter. Grazing conditions in winter quarters were good so that little extra feeding was required and the herd was in an exceptionally good condition with the arrival of spring. A census taken at the close of the fiscal year showed a total of 4,241 buffalo in the park. Increases and decreases for the year were as follows:—

On hand as per census report dated May 12, 1927.....	6,027
Decrease since May 12, 1927, including animals shipped, slaughtered and natural decrease.....	2,986
	<hr/>
	3,041
Increase, season 1927.....	1,200
	<hr/>
Buffalo in park, March 31, 1928.....	4,241

At the time the above census was taken the herd was distributed as follows:—

In winter quarters.....	2,366
“ shipping inclosures.....	1,123
“ home paddock.....	115
“ cattalo inclosure.....	8
“ cattalo lane.....	3
“ main park.....	626
	<hr/>
Total.....	4,241

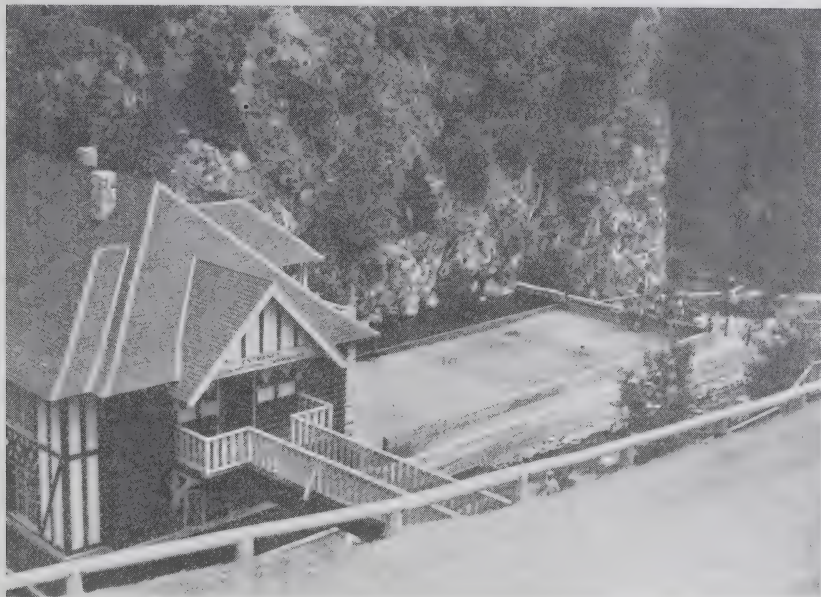
The count included 76 yearlings in the main park and 32 yearlings in the Home Paddock herd. The remainder of the herd, other than the shipping stock segregated, were nearly all five-year-olds and older. These animals included 425 males of from four to seven years; 566 males from eight to fifteen years and 47 males over fifteen years. Females four years old and upwards totalled 1,897.

Other animals in the park include elk (estimated), 475; mule deer (estimated), 1,650; moose, 54; antelope, 3; yak, 26; domestic cattle, 11; mixed stock, 38.

Farming operations were carried on as usual and approximately 500 acres were seeded with oats. About 55 acres were left for green feed and from the remainder 15,799 bushels were threshed. This yield was sufficient to meet all the requirements of the park including seed for the next crop and to allow shipment of 8,000 bushels to other national parks as well. Two hundred and fifty acres of land were summer-fallowed and ten acres of new ground broken.

Approximately 350 tons of straw were secured from the oat crop and this made splendid winter feed for the buffalo. About 850 tons of hay were also secured from the Ribstone meadow and 22 tons from the Home paddock. The usual maintenance necessitated the ploughing of 122 miles of fire-guard, repairs to 95 miles of fence and construction of three miles of new fencing, and repairs to 35 miles of telephone lines.

Sixty-one coyotes were destroyed in this park by the wardens, 45 being caught by dogs and the remainder shot.



Radium Hot Springs, Kootenay National Park.

Visitors.—The records kept at the different gates show that 12,679 people entered the park. The actual number of visitors greatly exceeds the above figures as, in the absence of a gatekeeper many do not register.

Each year the picnic grounds at Mott lake are becoming more popular. Picnic parties from every direction make use of these grounds and the improvements made for their convenience have been very much appreciated.

ELK ISLAND PARK

In Elk Island park the increased area has tended to improve the condition of the buffalo herd maintained there. Last year the buffalo fed out on the range the whole year and came through with a loss of only three animals. The total numbers of animals in this park are now: buffalo 729, moose 227, elk 454, deer 288.

Haying operations were interfered with by heavy rainfall; however 246 tons were stacked for the winter's feed.

POINT PEELEE PARK

This charming reservation in southern Ontario is of increasing value as a sanctuary for bird life and as serving the recreational needs of this part of the province. The park is distant only about thirty-five miles by motor highway from the city of Detroit and is, consequently, visited by a large number of people from that section of the United States. Last year approximately 11,350 cars registered in the park carrying about 45,400 passengers. Two hundred and fifty-five camping permits were issued, 210 of which were for less than three days. Of these, 150 were taken out by United States residents registering from 8 different states, while 60 showed Ontario registrations.

Next to its beautiful sand beaches fronting lake Erie the bird life forms, perhaps, the greatest attraction of the park. Thousands of birds visit the reserve during the spring and fall migrations and large numbers make it their breeding ground. Quail and pheasant, which remain throughout the year, are steadily increasing in numbers. Both black and grey squirrels are found in the park and appear to be rapidly increasing. An open season is allowed each year for shooting of duck during four days of each week from October 1 to December 15. Three hundred and twenty permits were issued to hunters during this period last year. Muskrats are also very numerous and an open season of ten days for trapping was allowed last year. On account of the severe cold which froze the marshes, only four days good trapping was possible, but in this period 400 more rats were taken than in the previous year.

• FORT ANNE HISTORIC PARK, ANNAPOLIS ROYAL, NOVA SCOTIA

This interesting reservation continues to be one of the most attractive sites in the Maritime Provinces. Last year about 15,000 visitors entered the park of whom 9,787 registered and were personally conducted through the museum, an increase of 1,630 over the previous year. At times three attendants were necessary to handle the crowds. The visitors' book shows an increase in the number of persons conducted through the museum during the past nine years, from 2,152 in 1919 to 9,787 in 1927.

A number of interesting exhibits were added to the museum during the year including a collection of coins from 1604 to the present date. Lt.-Col. Prideaux, the expert numismatist, kindly gave his time and valuable advice to the making of this collection, and the expense in connection therewith was met by the Historical Association of Annapolis Royal. Collections of native birds, rocks, and minerals of the county of Annapolis were also added. A gift to the museum included a rare silver medal cast by the British Government in 1867 to commemorate the Confederation of Canada, the gift of an anonymous friend, and a rare engraving from the picture by Harris of the Fathers of Confederation.

The most important construction work was the building of a new pavilion on the site of the old British block house pulled down in 1882.

PRESERVATION OF TOTEM POLES

The interdepartmental committee for the preservation of totem poles in the Indian villages of British Columbia, of which the Commissioner of National Parks is a member, met several times during the year and laid out plans for the furtherance of the work. Mr. Harlan I. Smith, the well-known archaeologist, whose services were loaned by the National Museum of Canada, and who for the two previous years had been in charge of preservation work at Kitwanga, B.C., again directed operations, this year at the Kitselas canyon. Fifteen poles in

all were found here. Of these twelve had already fallen and upon examination almost all of the poles were found to be badly decayed. Eight specimens however were restored. In each case a well-seasoned, creosoted supporting pole was inlaid at the back of the original pole, the old pole was thoroughly oiled to preserve it from the weather and re-erected in a cement foundation immediately below the soil. Attempts were made to restore the original colouring of the poles in harmony with their antiquity. To date twenty-six poles, all within easy access, have been restored. Mr. Smith reports, however, that there are still twenty-four poles standing within sight of the railway and sixty others within a radius of 15 miles which should be preserved. It is gratifying to note that the Indians themselves evinced great interest in the work and with very few exceptions showed a willingness to assist the Government in every way.

Protection of Migratory Birds

The work in connection with the protection of migratory birds and the enforcement of the Migratory Birds Convention Act was carried on by the Migratory Birds Division of the National Parks of Canada as in former years. There was complete co-operation with provincial authorities, to whom the enforcement of bird protection measures has largely been left. As in former years, hundreds of honorary game officials also lent their assistance and furnished this office with valuable information respecting bird conditions in their localities. By a system of circular letters sent from Ottawa they were kept informed of the work of other honorary game officials and of bird conditions generally. Officers of the Royal Canadian Mounted Police helped materially in the enforcement of the law and the conduct of investigations.

The Chief Federal Migratory Bird Officer for the provinces of Ontario and Quebec, with a staff of temporary assistants, patrolled the gulf of St. Lawrence during the summer with a view to protecting the abundant sea bird life of the north shore. During the winter he made patrols in both provinces and delivered addresses on birds and bird protection.

The Chief Federal Migratory Bird Officer for the western provinces made patrols throughout these provinces and supervised the sanctuary and public shooting grounds. In co-operation with the Biological Board of Canada he also carried on a study of the food habits of marine birds with special relation to the spawning of herring.

In June last, following suggestions from provincial game officers and the chief federal migratory bird officers, a number of amendments were made to the regulations for the enforcement of the Migratory Birds Convention Act. These included a close season throughout the year for yellow-legs and an earlier season for geese and brant in the western section of British Columbia north of the 52nd parallel, a change in the western and eastern districts of British Columbia and the inclusion of Queens county, Nova Scotia, with the district of Yarmouth, Shelburne, and Digby for ducks and rails. The close season for wood ducks was continued; and the protection for eider ducks in Quebec continued throughout the year; the use of the rifle for taking migratory game birds was prohibited in the electoral districts of Chilliwack, Dewdney, Delta, Richmond, Point Grey and South Vancouver, in British Columbia. A provision was placed in the regulations regarding the issue of permits allowing the capture of migratory birds for banding. A consolidation of the Migratory Birds Convention Act and of regulations containing these amendments was printed and distributed prior to the opening of the hunting season.

To ascertain whether continued protection for the wood duck was desirable letters were sent to people in the provinces of Ontario and Quebec familiar with bird conditions in their respective districts inquiring about the status of the

species. The information received indicated that this species is scarcely holding its own and that continued protection should be given it under the Migratory Birds Convention Act.

In January, 1928, a Dominion Game Conference was called at Ottawa by the Minister of the Interior. Representatives from each province and chief federal and provincial game officers were present, as well as the Chief of the United States Bureau of Biological Survey, Washington, D.C. The conclusions reached by the conference were expressed in the form of fourteen resolutions which dealt with the following matters: Changes in the provincial regulations respecting the hunting of game mammals and birds; the reduction of daily and seasonal bag limits; the prohibition of auto-loading firearms; the licensing of hunters and the recording of all game killed and taken; the formation of a Dominion Fish and Game Protective Association; further protection for the wood duck until January 31, 1931, coupled with the proposal that sanctuaries be set aside for this species; the establishment of additional public shooting grounds; an amendment to the Migratory Birds Convention Act Regulations in respect to damage done to crops by migratory birds; the protection of western bird sanctuaries, and the checking of shipment of game trophies taken in Canada and being sent to foreign countries. The conference also approved the policy of reserving suitable areas wherein Indians alone may trap.

Oil Pollution.—A serious loss in bird life due to the dumping of oil from vessels in navigable waters, or reaching navigable waters in other ways, received much attention. During the week of November 14, a national conference in which Canada took part was held at Washington and a draft convention on oil pollution of the high seas was prepared and is now before the Maritime Powers.

Waterfowl Census.—This branch is co-operating with the United States Bureau of Biological Survey in undertaking a waterfowl census throughout Canada. Plans are being made to carry out this work during the next few years so that it may be decided whether waterfowl are increasing or decreasing during any given period and that shooting restrictions may be modified accordingly.

Bird Banding.—The central registry in connection with the banding of wild birds, a work which is affording much valuable information with respect to the distribution, breeding habits, and migratory flights of wild birds, was maintained as usual in the branch. During the year 11,287 records of birds banded by Canadian co-operators, and 7,872 repeats and returns on birds already banded were received. Mr. Jack Miner, of Kingsville, Ont., who since 1909, has banded several hundred Canada geese and many ducks, has transferred to the branch all letters which he has received reporting returns on his banded birds. This information proved a valuable addition to the Official Canadian Record of Bird Banding Returns and has been prepared for publication.

Bird Sanctuaries and Public Shooting Grounds.—Minor changes have been made in the boundaries of Quill Lake bird sanctuary and Crane Lake bird sanctuary, Saskatchewan. Minor changes have also been made in the boundaries of the following public shooting grounds: Jackfish Lake, Saskatchewan; Lake Francis, Manitoba; and Marshy Point, Manitoba.

Educational Work.—Educational work was carried on as formerly through the distribution of pamphlets, posters, the Migratory Birds Convention Act and abstracts of the regulations. Circular letters regarding the changes in the regulations for 1927 were distributed to the Canadian press. A reprint of 100,000 copies of the pamphlet "Lessons on Bird Protection", in English, and 20,000 of "Bird Houses and their Occupants", in French, was necessitated by numerous demands. Lectures on bird protection were given by members of the permanent staff and lantern slides were furnished to honorary game officials and others for

lecture purposes. Various camps attended by young people were also visited during the summer and instructions given in bird protection and natural history subjects.

The lantern slide library now contains 4,770 slides, covering 948 subjects, and showing 338 different species of birds. Slides totalling 4,241 were lent during the year.

The radio was also utilized for lecture purposes and from time to time items of interest were broadcasted to explorers and others in the far north.

Trumpeter and Whistling Swans.—During the spring swan migration a number of whistling swans alighted above Niagara falls during a thunder storm and were swept over the falls, several of the birds being killed and many injured. This department co-operated with the Ontario Department of Game in caring for the injured birds. Several of these were sent to the Ontario Provincial Game Farm and a number of dead birds were forwarded by the province to recognized



Elk, Buffalo National Park.

museums. While accidents of this nature are extremely regrettable they are, fortunately, rare, occurring only when the spring migration reaches the upper Niagara river during stormy or foggy weather.

Bird Census.—A Christmas bird census was made at many points by members of the various naturalists' clubs and by officers of this branch. At Ottawa 22 species were found and 1,935 individuals. These winter bird censuses taken from year to year give a comparative idea of the distribution of bird life at a time when it is at its lowest ebb.

Eggs of Marbled Murrelet.—The most outstanding ornithological event of the year in Canada was, probably, the discovery of the eggs of the marbled murrelet. These were found by Mr. Solomon John Darcus, of Penticton, B.C., while collecting specimens for scientific purposes on the west coast of Queen Charlotte Islands, B.C. The nesting of this species has been unknown since the discovery of the species in 1789.

Prosecutions.—Eighty-seven prosecutions were instituted by Dominion officers in connection with the enforcement of the Migratory Birds Convention Act. These resulted in 69 convictions, 14 suspended sentences, and 4 cases were dismissed. Fines imposed amounted to \$1,102. Prosecutions instituted by provincial officers are not included in this summary.

Permits and Licences.—Permits and licences were issued as follows (calendar year 1927):—

Collection of birds for scientific purposes.....	270
Possession of birds for propagating purposes.....	448
Capture of birds for propagating purposes.....	36
Destruction of certain birds when found to be seriously damaging agricultural or fishery interests.....	54
Taking of birds for banding purposes.....	103
Practising taxidermy.....	80
Shooting of geese and brant in Queens and Shelburne counties, Nova Scotia, in the open season provided by law.....	296

Historic Sites and Monuments

The preservation, restoration, and marking of historic sites of national importance throughout Canada has been carried on throughout the year. The usual sitting of the Historic Sites and Monuments Board was held in Ottawa in May. Of the sites considered twenty were selected for commemoration. During the past year twenty-four sites were marked, making a total of one hundred and three since the inception of the work seven years ago.

The public interest and sympathy felt for this national undertaking is increasingly manifest not only in the number of inquiries received concerning them but in the increase of visitors to the sites themselves.

MARKING OF HISTORIC SITES

The work done in the different sections of the country was as follows:—

MARITIME PROVINCES

Louisbourg, N.S.—Preliminary steps were taken in the matter of acquiring approximately three hundred acres of land for the creation of a national historic park surrounding the historic fortress.

A cairn, to which is affixed a tablet, was erected on a plot of ground, provided for this purpose by Mr. Hugh Ross, K.C., near the original west gate of the fortress, to mark the site of Dauphin bastion, built by the French in 1738 and demolished by the British after its capture in 1758.

Sydney, N.S. (Joseph Wallet des Barres).—A tablet was affixed to the front of the Post Office building on Dorchester street to commemorate the public services of Joseph Wallet des Barres, the distinguished military engineer employed by the British Government to survey and chart the eastern coast of North America and later first Lieutenant-Governor of Cape Breton (1784-87) and the founder of Sydney.

Battle of Shannon and Chesapeake, Halifax, N.S.—A monument of cut granite with a bronze tablet was erected on the grounds at Admiralty House, Halifax, to commemorate the notable defeat and capture of the United States frigate *Chesapeake* off Boston harbour, by H.M.S. *Shannon*, of Halifax, June 1, 1813.

Yorkshire Settlement, Chignecto.—A cut-stone monument of special design, to which is affixed a bronze tablet, was erected in Fort Beausejour historic park to commemorate the Yorkshire settlers of the counties of Westmoreland

and Cumberland who during the American Revolutionary war loyally supported the authorities and helped to quell the Eddy rebellion of 1776.

Tonge's Island (Ile de la Valliere), N.B.—A cut-stone monument to which is affixed a bronze tablet, was erected in Fort Beausejour historic park to commemorate events connected with the site of Ile de la Valliere, once capital of Acadia, situated between Fort Beausejour and Fort Lawrence. The island was granted to Michel Le Neuf de la Valliere, Seigneur of Chignecto, in 1676, who acted as Commandant and Governor there under Count de Frontenac, 1678-84.

QUEBEC

Fort Ste. Therese, near St. Johns.—A boulder with tablet was placed in the Bunker United Empire Loyalist burial grounds to mark the site of Fort Ste. Therese, built in 1665 by M. de Salieres, for defence against the Iroquois. The fort remained in existence until 1760, when it was burned by Major Robert Rogers.

Battle of Lacolle, Lacolle.—A cairn with tablet, surrounded by a suitable fence, was erected on a small plot of land, donated by Mme. Joseph Boudreau, to perpetuate the memory of the officers and soldiers of the 13th Regiment, Royal Marines, from Ile-aux-Noix, and of the Canadian Fencibles and Canadian Voltigeurs, who lost their lives at the Battle of Lacolle, March 30, 1814. The United States troops, after a severe attack on the stone mill on Lacolle creek, near the present bridge on the highway, were compelled to retire with heavy losses and to abandon their plan of campaign.

Madeleine de Vercheres, Vercheres.—A tablet was affixed to the existing monument, located near the river St. Lawrence, at Vercheres, to perpetuate the memory of Madeleine de Vercheres, who, in 1692, with her two brothers, an old servant and two soldiers, successfully defended Fort de Vercheres against a war party of Iroquois.

Battle of the Cedars, Cedars.—A cairn with tablet was erected on a plot of ground donated by Mr. Adolphe Tessier, opposite his residence, to commemorate the events associated with the Battle of the Cedars May 19-21, 1776, when two invading United States forces were surprised by a company of Canadians and Indians and forced to surrender.

Battle of Ile-aux-Noix, Fort Lennox.—A tablet was affixed to the gateway at the north entrance to Fort Lennox to commemorate the events associated with the naval battle which took place on the Richelieu river nearby on June 3, 1813, ending in the capture of the United States sloops *Eagle* and *Growler*.

Sir Wilfrid Laurier, St. Lin.—A cairn with tablet was erected on a plot of ground in front of the town hall to commemorate the public services of Sir Wilfrid Laurier, late Premier of Canada, who was born at St. Lin. This work was carried out at the request of the National Committee for the celebration of the Diamond Jubilee of Confederation.

ONTARIO

Pointe au Baril, Maitland, Grenville County.—By permission of Dr. R. E. Webster, a tablet was affixed to the old stone tower adjacent to the Montreal-Toronto highway, to mark the site of Point au Baril, where the last French ships of war that navigated lake Ontario were built.

Fort Norfolk, Turkey Point, Norfolk County.—With the consent of the provincial Government a cairn with tablet was erected on lot 14, concession A, township of Charlotteville, to mark the site of Fort Norfolk, built 1812. The

famous missionary, Dollier de Casson, and party encamped at this site March 26, 1670. It was selected by General Simcoe as a site for a fort and naval station in 1795 and during the war of 1812-14 it served as a defence for that part of Upper Canada.

Point Pelee, Leamington, Essex County.—A cairn with tablet was erected near the new pavillion in Point Pelee park to commemorate the several early events which took place there. These were: the encampment of Dollier and Galinee, April, 1670; the landing of Brock's forces, August 12, 1812, on the way to the famous attack upon Detroit; the defeat of an American detachment on the beach by Wyandottes, during the Pontiac war; the battle of Pelee Island, March 3, 1838, during the Upper Canada rebellion.

McKee's Point, Sandwich, Essex County.—A cairn with tablet was erected on a plot of ground provided by the town at the intersection of Sandwich and Main streets to mark the starting point of General Brock's expedition, August 16, 1812, to attack Detroit—the notable expedition which resulted in the surrender of the Detroit garrison, although greatly superior in numbers.

Sir John A. Macdonald, Adolphustown, Addington County.—A cairn with tablet was erected on a plot of ground in Lot 19, third concession of the township of Adolphustown, which was donated by Mr. A. R. Davis, to mark the old home of Sir John A. Macdonald. This work was carried out at the request of the National Committee for the celebration of the Diamond Jubilee of Confederation.

Sir John A. Macdonald, Kingston.—A tablet was affixed to the outer front wall of the building at 102 Rideau street, Kingston, the boyhood home of Sir John A. Macdonald. This work was also carried out at the request of the National Jubilee Committee.

Kaministiquia Portage, Pointe de Meuron, Fort William.—A cairn, tablet, and fence were placed on a plot of ground, donated by Col. S. C. Young, on lot 19 in the first concession north of the Kaministiquia river, between Fort William and Port Arthur, to mark the site of the canoe landing at the beginning of the long "Portage Route" to the Great West. This trail was used by the Indians long before the arrival of the white man and subsequently by French, British and Canadian discoverers, explorers and traders.

WESTERN CANADA AND BRITISH COLUMBIA

Cluny, Alta. (Indian Treaty No. 7).—A cairn with tablet was erected on the southerly half of section 21, township 21, range 21, west of the 4th meridian, in the Blackfoot Indian reserve, to commemorate the events associated with the signing of Indian Treaty No. 7, September 22, 1877, whereby the Blackfeet, Blood, Piegan, Sarcee, Stony and other Indian tribes surrendered their rights to 50,000 square miles of territory lying in southwestern Alberta.

Jasper House, Alta.—A cairn with tablet was erected along the Jasper highway, near the Rocky river, Jasper national park, to mark the site of the old Jasper House, built at the northern end of Brulé lake by the North West Company about 1813 and about 1837 removed to a site on the west bank of the Athabaska, opposite the mouth of the Rocky river. For half a century this post was a main support of the trade route across the mountains.

New Westminster, B.C.—A cairn with tablet was erected on a grassy plot immediately in front of the entrance to the British Columbia penitentiary to commemorate the several historic events associated with New Westminster, the first capital of the colony of British Columbia.

Nanaimo, B.C.—A granite block, to which is affixed a tablet, was erected in Dallas square to commemorate the discovery of the first coal mine in British Columbia, in 1852, and the consequent inception of an industry which has largely contributed to the industrial life of the province and aided in the growth of trade on the western coast of Canada.

Fort Hope, Hope, B.C.—A cairn with tablet was erected at the foot of Wallace street, near the Fraser river, to mark the site of the stockaded post at Hope, built in 1848 by the Hudson's Bay Company, and the building of the old "Brigade Trail". The post was an important point in the company's transportation system and the place of transfer from water to land travel. Hope was also the centre of the earliest gold mining on the Fraser.



Glaucous Winged Gulls, Bare Island, B.C.

PRESERVATION WORK

At a number of the larger sites controlled by the department, preservation and other improvement works were carried out on the structures located thereon and to the grounds, of which the following are the most important:—

Fort Cumberland, N.B.—A pavilion was erected in the park, repairs made to the old powder magazine, the entrenchments were cleared of debris and the site generally cleaned up.

Martello Tower, Halifax, N.S.—Extensive repairs were carried out on the masonry of the exterior wall of the tower in Point Pleasant park. The inner stairs and floors were renovated.

Fort Chambly, Chambly Basin, P.Q.—Repairs were made to the living quarters, the observation tower, the dungeon and magazine, and to the stone retaining wall facing the Richelieu river. Trees were planted on the picnic grounds and camp stoves provided for the convenience of tourists.

Fort Lennox, Ile-aux-Noix, P.Q.—Repairs and improvements were made to several of the old buildings. The chimneys and embankment of the old ovens

were repaired and camp stoves constructed for the convenience of tourists and campers.

Fort Wellington, Prescott, Ont.—The exterior woodwork of the blockhouse was painted, new conveniences installed, inner palisades repaired, and electric lights placed in the museum.

ACQUISITION OF SITES

Action was also taken in regard to the acquisition of other sites recommended by the Board for future marking, and control of the following has been obtained:—

MARITIME PROVINCES

Admiral d'Anville's Encampment, Bedford Basin, N.S.—Mr. E. Clayton has donated a plot of ground 20 feet square adjacent to the old French landing road on the outskirts of Halifax to mark the site of the landing place of the ill-fated squadron under the command of duc d'Anville, in 1746, which attempted the re-capture of Acadia.



Jasper House Memorial.

QUEBEC

Battle of Two Mountains, near Senneville.—Mr. and Mrs. Waldo W. Skinner have donated a plot of ground, 25 feet square, adjacent to the Senneville road, for the erection of a memorial to commemorate the events associated with the engagement which took place in 1689 on the lake of Two Mountains, between the French and Iroquois, which resulted in the defeat of the Indians and the saving of the island of Montreal.

Chateauguay Ford Battle, Allan's Corners.—Mr. Wm. Kerr, of Howick, has donated a plot of ground, 25 feet square, adjacent to the Montreal-Malone highway, on which to erect a memorial to commemorate the events connected with the flank engagement of the battle of Chateauguay which took place on October 26, 1813, between the Canadian forces and the invading United States troops.

ONTARIO

Battle of Ridgeway, Ridgeway, Welland County.—The Council of the Township of Bertie has donated a plot of ground, 25 feet square, adjacent to the Garrison road, for the erection of a memorial to commemorate the engagement of June 2, 1866, between a force of Canadian militia and a body of Fenians.

Battle of York, Toronto.—The Provincial Government and the city of Toronto have granted authority for the placement of a bronze tablet on the Province of Ontario building, in the Exhibition Grounds, to commemorate the events associated with the battle and capture of York, April 27, 1813.

PRAIRIE PROVINCES AND BRITISH COLUMBIA

Lower Fort Garry, near Winnipeg, Man.—The Hudson's Bay Company has granted permission to place a tablet at the gateway of Lower Fort Garry to mark the site on which Indian Treaty No. 1 was signed.

Lethbridge, Alta.—The civic authorities have provided an area in Galt park for the erection of a cairn and tablet to mark the development of the first coal mine in Alberta and the services of Nicholas Sheran, the first man to recognize and assist in developing the coal resources of the province.

Fort Steele, B.C.—The executors of the R. T. Galbraith estate have donated a plot of ground, 25 feet square, adjacent to the Fort Steele-Bull River highway for the erection of a memorial to mark the site of Fort Steele, the first fort of the North West Mounted Police in British Columbia.

APPENDIX

Report of the Secretary of the Alpine Club of Canada, Little Yoho Camp, 1927

The twenty-second annual camp of the club was held in the Little Yoho valley from July 19 to August 2, 1927. The lovely site familiar to many members as that of the last camp before the war was as attractive as before, though owing to the long preceding winter, flowers and growth generally were late in making their appearance. The weather was delightful. Only one storm occurred, certainly a bad one, but it was in the evening and no one was inconvenienced.

The attendance was smaller than usual, but there were no outlying camps and the camp membership was compact and congenial.

Construction was under the experienced direction of Mr. C. A. Richardson, of Calgary, and all went well. Members motored to the Canadian Pacific Railway camp at Takakkaw falls and thence walked along the upper trail and across the open alplands to camp. A few travelled via Burgess pass and some by Emerald lake.

Most of the graduating climbs were made on mounts President and Vice-President. Mount Marpole, an interesting rock climb, was accepted as entitling to the badge. Mount des Poilus, still often spoken of by its former name, mount Habel, was climbed several times but was a long distance from camp. The isolated peaks, mount Kerr and mount McArthur, being near the camp, were very popular. One first ascent was made. On July 31 Messrs. L. Grassi, G. A. Gambs, N. L. Goodrich, and M. Cropley climbed mount Olive, near mount Gordon, by a difficult route, returning by a much simpler way. The mountain was named by Prof. Harold Dixon, in 1897, from the colour of its rock.

The Yoho region abounds in opportunities for delightful excursions. Twin falls, the Yoho glacier, Kiwetinck lake and the pass beyond, Takakkaw falls, Yoho (miscalled Summit) lake, Burgess pass, all attracted members again and again.

Dr. Bell, the President, ill in Vancouver, was greatly missed, as was also Mr. A. O. Wheeler, the popular director of the club for many years, who was called elsewhere on business. This is the second camp in the whole history of the club from which Mr. Wheeler has been absent. Other members of the executive were unable to be present but those there worked hard and all went well.

Among the guests of the club, Mr. N. E. Odell, of mount Everest fame, was outstanding. He delighted the camp by his story of the last attempt told in vivid language at the camp fire. Mrs. Odell, Mr. W. H. Lewin, from England, Mr. Murray Gibbon, of the Trail Riders and the C.P.R., were welcome visitors. Senator Bostock was the first visitor of political standing to visit camp. One hundred and one persons were placed under canvas, among them being representatives of the Alpine Club of England, the American and Swiss Alpine Clubs, the Climbers Club, the B.C. Mountaineering Club, the Appalachian Mountain Club, the Ladies' Alpine Club, and the Royal Geographical Society. Members present were drawn from England, Scotland, Canada and the United States.

**Report of the Secretary of the Alpine Club of Canada, Banff Club House,
1927**

Registrations at the club house were the largest since 1920, in which year the annual camp being held at mount Assiniboine, many members stayed in Banff on their way.

Considerable addition was made to the domestic equipment and gifts were received from various sections of the club and from friends. It is hoped to make various improvements during the coming season. The canvas tent houses, built in 1909, are nearing their end and timber huts will be substituted as opportunity offers.



Climbing Mt. Abbott, Glacier National Park.

The season, from the weather point of view, was not a very favourable one, and the club house was closed early in September.

Several climbs were made of mount Edith, and mount Louis was again climbed without professional guides. Mount Norquay is always a popular training climb made several times a season. Mounts Cascade and Rundle are voted dull.

The new climbing hut in Prospectors' valley has proved a great success. It makes a fine base for climbing the Ten Peaks and other mountains in the neighbourhood. The club is greatly indebted to the National Parks of Canada for improving the Prospectors' Valley trail which will probably be well used in future. The club hopes, as conditions permit, that huts will be erected on other suitable sites. This will encourage original climbing and develop the mountaineering art.

Several important expeditions were made during the season. Mr. W. A. Don Munday again led an attack on the so-called "Mystery" mountain and again Fate said "No." It is hoped that in 1928 the result of previous experience will avail to ensure the conquest of this fine peak.

Mr. A. J. Ostheimer III led an important expedition in the Columbia ice-field country, details of which are not yet to hand.

Many distinguished visitors were at the club house, including General Sir W. Furse, of the Imperial Institute; Capt. Douglas King, Secretary of the War Office; General C. H. Mitchell, of Toronto; Colonel Crookshank, M.P., of His Majesty's Body Guard; General Ross, of Montreal; Mr. N. E. Odell, one of the Mount Everest expeditioners; and others. As always, the club house was a centre of information on mountain matters to many visitors.

The attendance at the club house was 339, drawn from England, Scotland, Ireland, Belgium, Tasmania, the United States and Canada.

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DEPARTMENT OF THE INTERIOR, CANADA
HON. CHARLES STEWART, Minister W. W. CORY, Deputy Minister

NATIONAL PARKS BRANCH
J. B. HARKIN, Commissioner

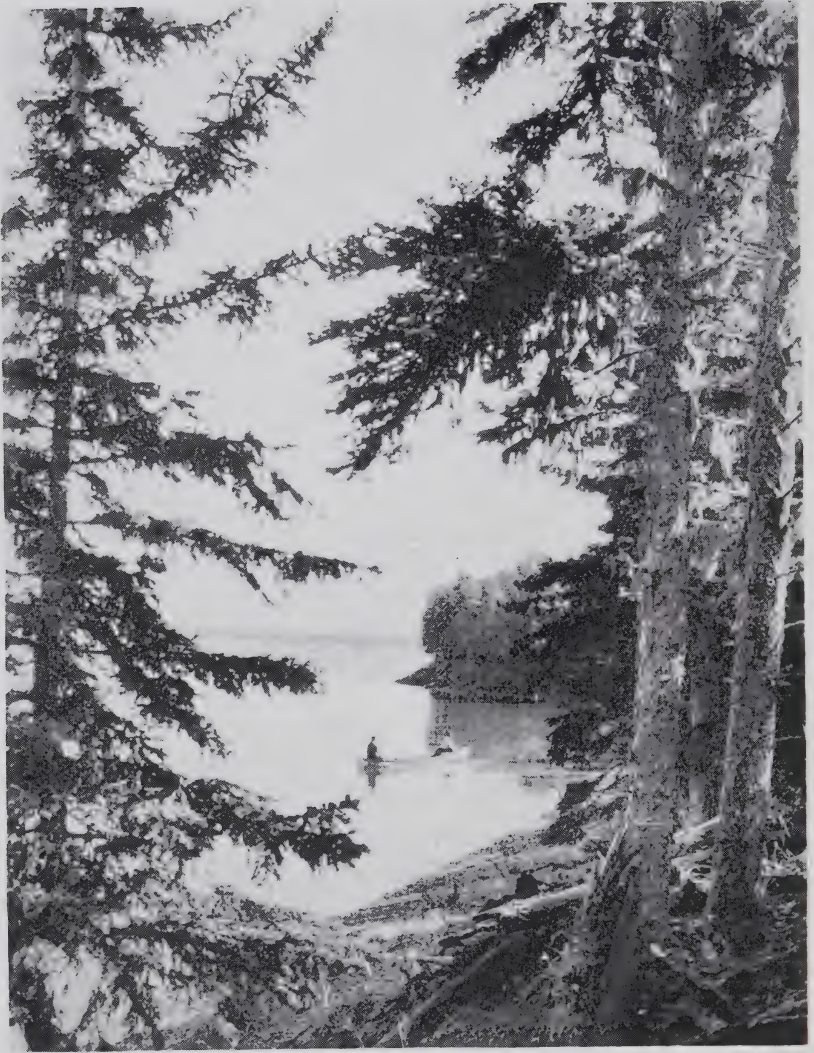
2014
Annual report-
National Parks of Canada

Report of the Commissioner

YEAR ENDED MARCH 31

1928/1929

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1930



Stony Point, Kingsmere Lake, Prince Albert National Park.

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NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

GENERAL

The past year was one of continued progress in the National Parks of Canada. Each year it becomes increasingly evident that a new pride and interest is awakening in these great national possessions on the part of the Canadian people. The travel drawn from Canadian sources in the case of every one of the parks was heavier than ever before and registrations showed that it represented every province of the Dominion. Foreign travel was also greater and included representatives from over twenty countries. In spite of the fact that the early part of the season was unfavourable for motoring on account of continuous rain, motor travel surpassed that of the previous season which had been regarded as exceptionally large.

The total number of visitors to all parks was 488,600. The heaviest traffic was naturally recorded in the three-park unit formed by the Banff, Kootenay and Yoho national parks. The two first of these parks are traversed by both railway and motor highway. Although Kootenay park can be reached from Firlands on the Golden-Cranbrook branch of the Canadian Pacific railway ninety per cent of the travel is by motor. The total motor traffic through these three gateways was as follows:—

Kananaskis Gateway, Banff National Park—

Canadian cars entering.....	32,982	Passengers.....	115,154
United States cars entering.....	2,015	Passengers.....	5,724
	<hr/> 34,997		<hr/> 120,878

Radium-Hot Springs Gateway, Kootenay National Park—

Canadian cars entering.....	7,853	Passengers.....	25,864
United States cars entering.....	2,719	Passengers.....	7,414
	<hr/> 10,572		<hr/> 33,278

Leancoil Gateway, Yoho National Park—

Canadian cars entering.....	2,029	Passengers.....	7,290
United States cars entering.....	351	Passengers.....	1,032
	<hr/> 2,380		<hr/> 8,322

Total Canadian cars.....	42,864	Passengers.....	148,308
Total United States cars.....	5,085	Passengers.....	14,170
	<hr/> Total cars entering.....		<hr/> Total passengers.....
	47,949		162,478

In addition to the above many thousands of tourists arrived by rail. There is, however, as yet no way of recording this travel accurately as hotel registrations undoubtedly include a considerable proportion of motor visitors.

The motor campsites in these parks were crowded throughout the season. The road to the Tunnel Mountain campsite, Banff, was reconstructed so as to afford easier grades and this camp, which is one of the best equipped in Western Canada, proved very popular.

The Banff-Windermere highway was opened for the season on May 17. Usually this road is closed early in November by winter snows. Last year, however, there was little snow during the autumn months and by ploughing small sections through the two passes the road was kept open until December 27, establishing a record season so far as length is concerned. In Yoho park travel was so heavy that it was found necessary to establish an additional equipped motor campsite about one mile west of Field near the Kicking Horse river, making three equipped camps now established in this park. Cars totalling 2,460 and carrying 8,861 persons registered at the three camps. A large percentage of travel to this park was drawn from the east, probably due to the fact that on the west no continuous motor highway yet connects the park with the coast. With the building of the proposed Big Bend road through connections will be established between Golden and Vancouver and heavy travel may then be expected from British Columbia and the Pacific Coast states.

Jasper park, as yet inaccessible by motor highway, had an exceptionally good season with 12,000 visitors. The Canadian National Railways again found it necessary to enlarge Jasper Park Lodge by the addition of a number of new bungalows and service buildings, at a total cost of \$111,000.

Visitors to Waterton Lakes park numbered 26,002, nearly 12,000 more than during the previous year. These figures are particularly gratifying in view of the bad condition of connecting roads during the early part of the season and indicate the increasing popularity of this reservation. The Prince of Wales hotel, operated by the Great Northern Railway Company at Waterton lake, was open for the first time throughout the entire season and accommodated 5,784 visitors. Through bus service between Many Glaciers in Glacier national park, Montana, and Waterton as well as a regular boat daily between the two parks enabled an interchange of travel that was mutually beneficial. The recent improvements to the park roads and the townsite have added greatly to the appearance of this park.

Buffalo and Elk Island parks each showed a large increase in travel with 18,454 visitors to the first and 18,968 to the second. Both of these animal parks have attractive lakes with good bathing beaches which make them interesting objectives for parties motoring from the Prairies, and the number of people who make use of them in this way is increasing each year.

Point Pelee park in southern Ontario also had an unusually successful year, 12,525 cars carrying 50,100 persons entered the park. A large percentage of these were from United States points, indicating that this park is proving increasingly attractive to the people of the large cities, Detroit and Cleveland, and other places bordering the Great Lakes.

Sixteen thousand persons visited the Fort Anne park at Annapolis Royal; 15,050 went to Vidals Point recreational area in Saskatchewan, and 8,850 to Mount Revelstoke park in British Columbia.

One of the important events of the year was the opening of the new Prince Albert park north of Prince Albert, Saskatchewan. During the previous fall and early summer construction had been carried on at top speed on the road from the park gate to Waskesiu lake, the site of the park headquarters and its most popular resort. By August 1 this road was in fairly good condition and the province had also brought up to motoring requirements the old provincial road from Prince Albert north to the boundary. It was, therefore, decided to throw open the park to the public on the 10th of August. An interesting program of addresses and sports was arranged in connection with the event. The Right Honourable W. L. Mackenzie King, Premier of Canada, came from Ottawa to perform the opening ceremony and publicly dedicated the new park to the use and enjoyment of the people of Canada. The Prime Minister's fine address concluded with the following significant words:—

"In the building of Canadian national life and the moulding of our national character it is of utmost importance that we should cultivate an appreciation of all that is beautiful in our physical environment. In a young country so amply endowed with natural resources there is always a danger that we may turn to the gods of the market-place and sacrifice the beautiful on the altar of utility. In opening the Prince Albert national park we dedicate it to the glory of the Creator whose bounty it mirrors in forest, lake and stream, and to the highest good of the Canadian people for all time to come."

The Prime Minister's time was limited as he was leaving almost immediately for England, but he remained over night in the park and made use of the attractive bungalow presented to him by the citizens of Prince Albert district. Between the date of the opening and the close of the season over 5,000 visitors entered the park—a large number, considering the fact that its reputation was as yet largely local and that parties travelling had to bring with them tents and camping equipment.

ENGINEERING WORK

No new construction work of importance was undertaken in the parks, appropriations being expended with a view to bringing existing highways and other services up to first-class condition. Now that motor travel to the parks has reached such large proportions the cost of maintenance grows heavier each year. Practically all roads within the parks are now of standard width and grade and well surfaced with gravel but each year general improvements such as widening curves, providing guard rails at dangerous points and strengthening of bridges where necessary are being carried out.

Access to Buffalo park at Wainwright has always been difficult during bad weather owing to the nature of the road. Last year, through the co-operation of civic officials of the municipality of Gilt Edge and the National Parks Branch, a good gravel road was built connecting the park with the townsite. A noticeable increase in travel immediately followed its construction.

In Jasper park the section of the Edmonton-Jasper highway from Jasper to the east boundary was completed, and as soon as the provincial road reaches the park this reservation will be accessible by motor travel. The journey along the Athabaska valley by this highway now makes one of the most popular excursions from Jasper town and nearly all visitors who remain any length of time in the park avail themselves of the opportunity of visiting Pocahontas and the eastern ranges, which are geologically among the most interesting in the park.

The three-mile section of road between Jasper and Jasper Park lodge, which had been experimentally treated with tar sand from McMurray during the previous two years, stood up well under exceptionally heavy traffic conditions. It seems apparent that this material will provide an excellent road surface, as durable as imported asphalt, and at less cost.

Work was continued on the new tote road to Athabaska falls and the most difficult section—from the Edith Cavell highway to the Athabaska flats—was completed. There is a drop in elevation of about four hundred feet from the highway to the river benches, but it was found possible to secure good grades. This road will not only be a great advantage in case of fire in the southern part of the park but it will also make it possible for a much larger number of visitors to see the beautiful Athabaska falls. It will further be of great assistance to parties going into the more remote regions, such as the Whirlpool sector, the Columbia Ice-field region, or up the Brazeau river. The tote road to Medicine lake was improved, widened in places, and fills strengthened.

The roads in Yoho park connecting with the main highway, particularly the road up Yoho valley, were improved and modernized so as to meet motor

requirements. Practically the whole of the Yoho road, with the exception of a short distance through the Yoho canyon, has now been brought up to standard. Similar construction has been undertaken on the Emerald Lake road.

Among other items of work, carried out under the direction of the Engineering Division of Head Office, were the following:—

In Prince Albert park, three contracts were let covering the construction of thirty-four miles of standard motor road from the south boundary to Waskesiu lake. The work included the erection of two truss bridges, one trestle bridge and several smaller bridges. Contour surveys were carried out of areas



Mt. King and Mt. Deville, Van Horne Range, Yoho National Park.

in the vicinity of the Narrows of Waskesiu lake, Prince Albert park, for subdivision purposes. An important reconnaissance survey of a proposed road on the south side of Waskesiu lake from headquarters at Primeau Landing to the Narrows, a distance of some eight miles, was made.

In Elk Island park a road from the Lamont entrance gate to Sandy beach on Astotin lake, four miles in length, was constructed. A survey for the location of the extension of this road around the south end of the lake to park headquarters was carried out.

The road up mount Revelstoke was extended one mile, the total length completed now being approximately nineteen miles. This carries the road past Balsam lake to the vicinity of Lookout point, its final objective.

Work was continued on the extension of the Jasper water distributing system, a total of 3,500 feet of six-inch main being laid, together with necessary house connections. Construction work on the new Jasper sewerage system was commenced late in the season, and 1,475 feet of fifteen-inch outfall main laid. This involved the driving of 450 feet of tunnel under the main line and yard

tracks of the Canadian National Railways, and the installation of cast-iron pipe on this section. In addition 2,240 feet of street mains with necessary house connections were laid in the townsite. The topography of Jasper townsite necessitated laying the main sewer to a depth of from sixteen to twenty feet in difficult material.

In Kootenay park the bathing-house at Sinclair radium hot springs, commenced in 1927, was completed. The concrete bathing pool, supplied from the hot springs was enlarged to a standard section with maximum depth of eight feet. Surveys were made in regard to the generation of electricity for the townsite near Sinclair radium hot springs. A truss bridge was constructed over the Ottertail river on the Field-Golden highway, replacing a timber bridge.

In Waterton Lakes park construction work was carried out on the Akamina road, which is now passable for motor traffic to Cameron lake, and provides a new route to the passes of the southern Rockies.

An inspection was made for the Forestry Branch of the road situation in the Riding Mountain national forest, and recommendations made for its development.

Two wharves to accommodate large boats were constructed in the St. Lawrence Islands park, one at Cedar island near Kingston, and one at Broder island near Morrisburg.

In addition to the above construction work, maintenance work was carried out on all trunk roads in Kootenay, Yoho, Waterton, and Jasper parks, a total of 145 miles of motor highways. This work included painting, repairing and redecking bridges; construction and repair of culverts; repair work, regrading, gravel surfacing and widening where necessary.

Preliminary surveys were made looking towards a re-location of part of the park section of the Banff-Calgary road, with a view to securing a more scenic route and better grades on the last six miles approaching Banff.

Highway Construction.—The present mileage of roads, trails and telephone lines in the different parks is as follows:—

Park	Number of miles		
	Roads	Trails	Telephones
Kootenay.....	63.0	102.0	64.0
Revelstoke.....	19.0	32.25	17.25
Banff.....	127.0	766.0	197.25
Jasper.....	62.0	637.50	343.0
Yoho.....	50.0	159.0	44.5
Glacier.....	9.0	121.0	7.0
Buffalo.....	1.0		34.5
Elk Island.....	11.2		
Waterton Lakes.....	20.0	176.0	56.5
Prince Albert.....	34.0	7.0	81.0
Totals.....	396.2	2,000.75	845.00

RECREATION

Each year sees a wider interest in trail riding and alpine climbing and larger numbers are penetrating to the more remote regions away from the beaten tourist trails. These mountain pathfinders are not only enjoying the thrill of the explorer but they are adding each year to the store of knowledge concerning the mountains and helping to open up new fields of enjoyment for the general public. The two organizations which have contributed largely to this end are the Trail Riders' Club of the Canadian Rockies and the Alpine Club of Canada. The former, which has a membership of over one thousand is doing much to develop trail riding as a sport and to encourage the spirit of adventure among lovers of the Canadian mountains.

The objective chosen for the annual ride last year was the Lake of the Hanging Glaciers, a beautiful body of water lying in an Alpine cirque about 6,000 feet above sea level. This lake has at its head magnificent glaciers which project into the lake itself. Great pieces of ice break away continually from the tongues of the glaciers to form small icebergs which float about on its clear blue waters. About ninety riders, fifteen guides and a string of fifty pack horses made the journey to the lake from the end of the Banff-Windermere highway, Kootenay national park. The expedition was in charge of Lieutenant-Colonel Philip Moore of Banff and Mr. J. M. Wardle, President of the Trail Riders' Club. The wide-spread enthusiasm aroused by the club was shown by the fact that two riders came expressly from England for the meet, two from Bermuda, one from the Bahamas and about thirty from the United States, including several well-known artists and writers.

After visiting the lake the members of the club explored the Starbird and Tiger Claw glaciers with their remarkable ice caves, before returning to Banff and Lake Louise.



Climbing Mt. President—Mt. Barometer and Mt. Balfour in distance.
Yoho National Park.

The Alpine Club of Canada also chose the Lake of the Hanging Glaciers as a site for their camp at the end of July, and by arrangements with the Trail Riders left their tents behind for the accommodation of the latter in the following week. This club, which has now been twenty-two years in existence, has contributed probably more than any other agency towards the exploration of remote and interesting parts of the Canadian Rockies and has developed and encouraged among young Canadians a love for the noble sport of mountaineering. There was an exceptionally large attendance at this season's camp and over ninety new names were added to the membership list. Mr. T. B. Moffatt of Calgary was elected president of the club. The graduation climb took place on The Dome, an interesting peak in the neighbourhood of the camp.

Winter Sports and Banff Carnival.—The attractions of Banff as a winter sports resort are also being more widely recognized and many visitors now spend a winter holiday in the park enjoying the clear mountain air and the exceptional opportunities for sport. The winter carnival was held as usual from February 2 to February 9. Owing to transportation difficulties the number of entries as well as the attendance lowered. The usual enthusiasm, however, was manifest; a fine program of sports was drawn up and the competitions were keenly contested.

The climatic conditions at Banff combined with the presence of hot springs are such as to make it one of the finest natural winter resorts on this continent and with time it must become as outstanding for its winter attractions as for those of summer.

Indian Days.—The annual summer fête of the Indian tribes in the neighbourhood of Banff known as "Indian Days" was held on July 25, 26, and 27. This annual festival dates back for many years and is eagerly looked forward to—particularly by the Stony Indians who have their reserve at Morley just east of the park boundaries. It offers visitors one of the most interesting events of the season at Banff. The Indians appear in all the glory of their ancestral finery of beads, buckskin, porcupine quills, ermine and eagle feathers. The parade in full dress costume is usually over a mile long with horses two or three abreast. Last year a very interesting program of horse races and trials of skill in archery, lassoing, and roping was carried out, and the entertainment also included a thrilling dramatization of an Indian story connected with the Indian war pony dance. Over 2,200 visitors were in attendance.

Scottish Festival.—The Scottish festival and Highland gathering, inaugurated under the patronage of His Royal Highness the Prince of Wales in 1927, was again held at the Banff Springs hotel in September, 1928. Several hundred Scottish-born Canadians and many others were in attendance and keen interest was manifested in the programs of Scottish music and ballad singing. Competitions in folksong music, pipers' bands, and Scotch dancing as well as the national games of putting the shot, tossing the caber, throwing the javelin, and the tug-of-war were keenly contested. Some of the best dancers in Canada also gave exhibitions of such national dances as the Highland fling, sailors' hornpipe, sword dance, Scottish reel, and the graceful Sean Truibhas.

This holiday festival of the arts which drew lovers of Scottish music and dancing from all over the country to spend a few days' holiday in one of the loveliest places in Canada is a significant event in the national parks. Visitors to the Canadian Rockies have sometimes compared the Canadian mountains unfavourably with the Swiss and Italian alps because they lack human background. A visit to the parks has hitherto been chiefly a feast for the eye. The beauty of nature and the additional charm which in some cases man has been able to add through architecture were the chief appeals. It is good to note that the parks are now becoming a centre of artistic interest through Indian folk music, ceremonies and handicraft, and also through Scottish folk art and games. There is, perhaps, no place in the Dominion so suited to become a background for artistic performances, and it is hoped that as time goes on the parks may become more and more the scene of other art festivals, which will help to enrich not only the interest of the parks themselves but the general cultural life of Canada.

Regatta on Lake Minnewanka.—The annual regatta on lake Minnewanka was held in the middle of August. An interesting program of boat races and surf riding was carried out before a large attendance of visitors. The lake is specially adapted to sport of this nature and it is expected that the regatta will become one of the permanent features of the summer season.

Golf Links.—During the entire summer season work was carried out by the Canadian Pacific Railway Company on the remodelling of the golf course at Banff, formerly operated by the Government. When completed, this course will rank with any on the North American continent, both as to scenic setting and sportiness. It occupies practically the same ground as the old course, but marked improvements have been made in laying out new fairways, and in bringing the old terrain up to present-day standards. Such good progress was made that the use of the temporary nine holes was abandoned and play commenced over the new eighteen-hole course in August.

The first tee of the new course is situated a few yards from the Banff Springs hotel. The professional's quarters and the first tee are on a shelf cut into the bank of the Spray river and the first drive carries across the Spray river to the fairway on the opposite side. There are two other water hazards on the course. The eighth hole is played across Devil's Cauldron, a shallow lake set in a cup-like depression, while one of the home-coming holes is played across an elbow of the Bow river.

No effort has been spared to make the course one of the very finest, and while it is sporty enough for championship play, there is no part of it too difficult for the beginner.

MARKING OF HISTORIC SITES IN THE PARKS

On July 14 a cairn and bronze tablet were erected in Jasper national park to commemorate the site of the famous Jasper House founded in 1813 and which for so long was the centre of life in the Athabaska valley. Jasper House was established by the Northwest Company at the north end of Brûlé lake during the eventful years when the struggle between that company and its famous rival, the Hudson's Bay Company, was at its height. Jasper Hawes, from whom the park derives its name, was the first clerk in charge of the post, which came to be known as Jasper's House, later Jasper House. Between 1827 and 1829, following the amalgamation of the two great companies, it was removed to the west bank of the Athabaska, opposite the mouth of the Rocky river, where for many years it was a centre of activity. Practically all early travellers called at this post and many famous names are associated with it.

The unveiling ceremonies were performed by Mrs. Knight, wife of the Acting Superintendent of the park, and addresses were delivered by Mr. J. A. Jaffray, Archivist to the Alberta Government; His Honour Judge F. W. Howay, of New Westminster, representing the Historic Sites and Monuments Board of Canada; and Mr. W. Thompson, head of the Publicity Department of the Canadian National Railways. The bronze tablet bears the following inscription:—

"Jasper House. Built by the Northwest Company about 1813, at the northern end of Brûlé lake. Some time between 1827 and 1829 it was rebuilt near this site. For half a century it was a main support of the trade route across the mountains and an important point for all persons journeying through the Yellowhead and Athabaska passes."

Simpson Memorial.—A boulder monument in memory of Sir George Simpson, Governor of the Hudson's Bay Company from 1821 to 1860, was unveiled in Kootenay park on September 17. In the course of his famous journey around the world, 1841 and 1842, Simpson travelled through the Banff park by way of Pechee gap, lake Minnewanka and Banff, crossing the mountains by the pass which now bears his name. At Simpson summit he made camp and cut his initials on a neighbouring tree, recording in his diary his sense of awe amid the magnificence of his surroundings. Previous to Simpson practically all early travellers had used the northern route, but his expedition called attention to the possibility of utilizing the southern passes. The Historic Sites and Monuments Board considered that a tablet should be erected memorializing

this crossing of the mountains and it was first proposed that a monument should be placed at the summit of the pass itself. The comparative inaccessibility of this spot, however, made it appear likely that the memorial would be seen by a very small number and it was, accordingly, decided to erect it at the junction of Simpson creek and Vermilion river, the end of Simpson's descent of the western slope. As it happens, this junction lies in Kootenay park immediately adjoining the well-known Banff-Windermere highway, a spot in full view of hundreds of passing cars each day. The unveiling ceremony was performed by the Governor of the Hudson's Bay Company, Charles V. Sale, of London, England. His Honour Judge F. W. Howay, of New Westminster, British Columbia, representing the Historic Sites and Monuments Board of Canada, delivered an address, while Mr. T. C. Elliott, of Walla Walla, State of Washington, one of the outstanding historians of that State, represented the Washington Historical Society. The memorial consists of a cairn of rough boulders and a bronze tablet bearing the following inscription:—

"In recognition of the public services of Sir George Simpson, Governor of the Hudson's Bay Company Territories (1821-1860), under whose guidance the 'Far West', the 'Far North' and Arctic coast were explored, peace with the natives was maintained, trade developed and British rule strengthened.

"In August, 1841, he was the first white man to cross the Rocky Mountains by Simpson Pass."

SURVEYS IN THE PARKS

The topographical survey of Banff and Jasper parks which was resumed in 1927 with two parties of surveyors of the Topographical Surveys Branch, Department of the Interior, was carried on through the season of 1928. The whole of Banff park has now been surveyed and good progress was made with the survey of Jasper park. It is estimated that two more field seasons of both parties will be required in order to complete the survey of Jasper park. An examination was made of the north boundary of Jasper park for the purpose of completing the report on the general readjustment of the boundaries of Banff and Jasper parks along the lines proposed by the Minister of the Interior in 1927. Another investigation was carried out of the two alternative areas suggested for a national park in the province of Manitoba. The reports concerning these matters are now receiving the consideration of the department.

PRESERVATION OF WILD LIFE

The success of the sanctuary conditions existing in the national parks has long since been established by their results. Wild life in general appears to be almost everywhere on the increase, both within the parks and in the areas immediately adjacent thereto. Sheep are now found in all parts of the parks on the eastern slope of the Rockies, and up to the present they appear to be free from disease of any kind. Bear are becoming exceedingly numerous and are so tame that they are seen by practically every visitor who leaves the main roads and goes out along the trails. While they are almost never dangerous unless molested, their depredations about camps sometimes render them a nuisance and in several cases, for the protection of property, they have had to be destroyed. Beaver are undoubtedly on the increase, particularly in Jasper park, which appears to be a natural home for them. The elk imported from the Yellowstone national park continue to do well and are spreading out into new areas in both Banff and Jasper parks. Fur-bearers are also reported to be on the increase, though undoubtedly the larger predatory animals such as lynx, wolverine, and coyote keep down their numbers.

Buffalo.—The government buffalo herds are now in a very satisfactory and thriving condition. The extension of the boundaries of Elk Island park provided much-needed pasturage for the increasing numbers of this herd. The continued thinning of the herd at Wainwright park has also had most satisfactory results and the pasturage in those sections of the park which had been denuded of grass through over-grazing is now coming back. The buffalo show the results of these improved conditions and last winter the whole herd came through in splendid shape. Following the policy adopted in the past few years, shipments totalling 1,088 animals were made throughout the summer to the Wood Buffalo park near Fort Smith, Northwest Territories. Reports show that the buffalo transported in former years to this region are doing well and have successfully adapted themselves to the new environment and conditions. The



Buffalo—Buffalo National Park.

strength of the herd at Wainwright at the close of the fiscal year was approximately 4,300 animals. During the year an addition of one square mile was made to Buffalo park at Wainwright. The extension brings the boundaries of the park down to the main line of the Canadian National Railways, and makes it possible for transcontinental travellers to see the buffalo from passing trains.

The Government was able to meet requests from several outside sources for wild animals for exhibition or breeding purposes. A pair of young buffalo were presented to the city of Johannesburg, South Africa, for the Zoological Gardens there, and arrived in good condition. Three buffalo were also forwarded to the Italian Government. These also bore the journey well and arrived in good condition. Six buffalo, three elk, and three mule deer from Wainwright park were presented to the Wild Life Animal park, Moose Jaw, Saskatchewan. A number of donations were also made from Banff park: these included one pair of Rocky Mountain sheep and one pair of beaver to New Zealand; two pairs of Rocky Mountain sheep to Melbourne, Australia; one Rocky Mountain ram to the Zoo, Edmonton, Alberta; five Rocky Mountain ewes and two rams to

Medicine Bow national forest reserve, Wyoming, U.S.A.; five Rocky Mountain ewes and two rams to the Wichita national forest, Oklahoma, U.S.A.; one pair of Rocky Mountain sheep to the Moose Jaw Wild Life Animal park; one brown bear to Calgary, Alberta; one pair of beaver to the Zoological Society of Scotland, Edinburgh.

Antelope.—The antelope herd in the Nemiskam park, Alberta, suffered a severe setback in December, 1927, when during a heavy snow-storm part of the fence was broken down and more than half of the herd wandered out beyond park boundaries. During the past summer every effort was made to recover as many of the animals as possible, but unfortunately over 200 remained uncaptured. At the end of the year there were 247 antelope in the park. The increase this year was not so large as usual due to unusually severe weather in November and December which affected both the wild and enclosed herds.

Fish.—The restocking of lakes and streams in the parks was again carried on through the valuable assistance and co-operation of the Department of Marine and Fisheries, which now maintains hatcheries in Banff, Waterton Lakes, and Jasper national parks. Over 1,110,000 cut-throat trout fry were distributed from the Banff hatchery; 4,577,000 Lock Leven trout fry; 5,550,000 rainbow trout fry; and 319,670 brown trout fry. Practically all the streams in the Banff park suited to fish life were stocked and shipments of fry were also placed in the main waters of Yoho and Waterton Lakes national parks. In June under the direction of the Biological Board of Canada, and following out recommendations submitted after two years' investigation of the waters of Jasper park, 250,000 trout fry, which had been hatched in the temporary hatchery at Jasper, were transported by pack-horse to Maligne lake. Although the weather was extremely cold at the time the transplanting was successfully carried out and at the end of the season the fish were found to be over three inches in length. A further shipment of speckled trout eggs was forwarded to Jasper in January, 1929, where the eggs were hatched in a similar way. These will be transported to Maligne lake and deposited there this spring when the ice goes out. In Waterton Lakes park the usual shipments of fry were received through the kindness of officials in Glacier national park, Montana, and these were liberated in the Waterton lakes and tributary streams. The small hatchery erected in this park last year proved its usefulness and was able to supply several thousand trout fry for the waters of the park. It is expected that the fish from the hatchery which will be spared the shock of the long journey from Banff will thrive better than those introduced in former years from that park.

FIRE PROTECTION

The season was an exceptionally favourable one for forest protection. Owing to the heavy rains during the spring months practically no fires occurred of any importance. In the autumn conditions became less favourable and there were a few outbreaks, but these were not serious with the exception of one in Banff national park and one in Prince Albert park. The latter threatened to assume alarming proportions but due to the prompt action on the part of the wardens was extinguished without serious loss.

The fire equipment in all the parks is each year being added to and is now reasonably adequate for any demands likely to be made. It includes: 76 portable pumps, 35 light twin pumps, 9 heavy pumps, as well as boats, railway speeders, velocipedes, out-board motors, etc.

The numbers of fires, the areas burned over, and the cost of extinguishing is shown by the following tables:—

RAILWAY FIRES DURING 1928-29

Park	Number of fires	Area burned	Cost of extinguishing
		acres	\$ cts.
Jasper.....	7	36½	17 00
Banff.....	3	¼	3 10
Yoho.....	1	.....	5 50
Totals.....	11	36½	25 60

GENERAL FIRES DURING 1928-29

Jasper.....	1	.....	2 35
Banff.....	21	2,881½	6,481 76
Yoho.....	4	.....	179 38
Buffalo.....	1	½	1 50
Kootenay.....	12	.....	.....
Point Pelee.....	2	505	.....
Prince Albert.....	8	25,369	977 99
Totals.....	49	28,755½	7,642 98
Grand totals all fires.....	60	28,792½	7,668 58

The mileage patrolled by the wardens totalled 291,382.

Five new warden's cabins were built during the year bringing the total number now in the parks to 119.

New telephone mileage totalled 18·5.

New trails were constructed as follows:—

Park	Trail	Miles
Glacier.....	Mountain creek.....	5
Jasper.....	Jasper lodge.....	3
".....	Maligne river.....	2½
".....	Jacques lake.....	18¼
Banff.....	High water.....	1
".....	Spray river, East side.....	4
".....	Taylor lake.....	4½
".....	Sundance.....	3½
".....	Mistaya.....	6
Mount Revelstoke.....	Clach-Na-Cuddin.....	2½
Waterton Lakes.....	Carthew.....	3¼
Yoho.....	Emerald lake.....	4

The total mileage of trails now in the parks is:—

Park	Miles
Glacier.....	121
Jasper.....	637½
Kootenay.....	102
Mount Revelstoke.....	32½
Prince Albert.....	7
Banff.....	766
Waterton Lakes.....	176
Yoho.....	159
Total.....	2,000¾

LANDSCAPE AND ARCHITECTURAL WORK

A very large number of plans of buildings proposed to be erected within the various national parks by private owners were examined, and in the majority of cases drawings showing suggested revisions of elevations were prepared with

a view to improving the external appearance without adding to the cost of the building. In a considerable number of instances, entirely new designs for various types of buildings were prepared at the request of the intending builder. Such buildings comprised, principally, residences and stores, but included also hotels, theatres, banks, churches, lodgerooms, tearooms, service stations, and public garages.

Working drawings, details, and specifications were prepared for the following:—

- Addition to R.C.M.P. Barracks building, Banff.
- New detachment buildings for R.C.M.P., Canmore.
- Buildings for camp grounds, Banff.
- Addition to officers' residence, R.C.M.P. Barracks, Jasper.
- Residence for Superintendent, Kootenay park.
- Garage, Kootenay park, for Superintendent.
- Residence for Superintendent, Prince Albert park.
- Garage for Superintendent, Prince Albert park.
- Warehouse building and boat-house, Prince Albert park.
- Addition to Administration building, Waterton Lakes park.
- Addition to Community building, Waterton Lakes park.
- New tourist bureau, Waterton Lakes park.
- Slaughtering plant, Elk Island park.
- Pavilion, Broder park.
- Shelters at Vidals Point recreational area, and St. Lawrence Islands park.

A number of plans for new subdivisions were prepared, notably those at Prince Albert park. Plans for the proposed layout of grounds at the Great Divide, for a proposed memorial park at St. Albert, and a zoning plan for Banff were made.

PUBLICITY

Active work was carried on by the Publicity Division during the year. It consisted of public lectures in Canada and the United States, the issue of attractive publications, the loan of prepared lectures, preparation and distribution of



Looking towards Massive Range, Banff National Park.

moving pictures, and the furnishing of articles and memoranda to writers, magazines and the daily Press. The number of lectures delivered during the year was 148. Moving pictures shown outside the office 646, within the office 1,299, loaned 212. The Photographic Library was increased by several hundred negatives and 18,544 new prints were added to the collection. Prints distributed totalled 18,830, enlargements 1,812, transparencies 73; 2,263 coloured slides were also added to the collection, 68 prepared lectures with slides were loaned, and 382 articles distributed. To meet the increasing demands for publications several editions of the existing pamphlets were ordered. These included *The Kicking Horse Trail* 24,700, *Information for Tourists* 51,500, and *Kootenay National Park and the Banff-Windermere Highway* 20,150.

A pamphlet concerning the new Prince Albert national park was prepared and printed; 50,000 copies of a small *Guide to Rocky Mountains Circle Tour* were issued, and a new edition was also printed of the *Guide to Fort Anne*.

REVENUE

Revenue collected by the National Parks of Canada during the fiscal year ended March 31, 1929, amounted to \$237,470.35. The following statement shows the various sources from which the revenue was obtained and the individual amounts:—

Source	\$	cts.
Banff park.....	150,963	10
Jasper park.....	29,994	39
Waterton Lakes park.....	5,622	08
Yoho park.....	3,223	17
Glacier park.....	166	14
Elk Island park.....	5,993	15
Buffalo park.....	23,561	61
Kootenay park.....	13,729	64
Prince Albert park.....	379	77
Fort Anne park.....	6	00
Point Pelee park.....	607	37
Historic sites.....	32	00
Fines and forfeitures.....	2,590	93
Migratory birds.....	74	00
Brereton Lakes park.....	10	00
Vidals Point recreational area.....	72	00
Lake Florence.....	60	00
Antelope reserve.....	384	00
Miscellaneous.....	1	00
Total.....	\$ 237,470	35

WORLD WIDE MOVEMENT FOR LANDSCAPE PRESERVATION

The awakening interest in the national parks, and the growing demand for the creation of new ones, from practically every part of the Dominion, indicate a new interest in landscape preservation which is clearly awakening in almost every part of the world to-day. No doubt, largely as a result of the immense growth of motor travel and the increased use of highways, there is growing up a new interest in natural beauty and a desire for the preservation of the countryside. A great deal is being done in this direction in England and in such countries as France, Switzerland, and Italy. The National Trust in England, incorporated in 1907, is empowered by an Act of Parliament to hold for the public good buildings of historic or architectural interest and places of striking natural beauty. While England has practically no wilderness areas left to conserve, the spirit behind this movement is closely allied with the policy of the national parks movement in Canada. In the United States the national parks are coming more and more to be recognized as parts of a larger scheme of landscape and scenic conservation and development, which cannot stop until it is nation-wide.

VALUE AND PURPOSE OF PARKS

While it is possible in an annual report to give some account of the visible work performed by the various staffs in charge of administration, it is very difficult to set forth the important work that is being accomplished in the parks in so far as the health and happiness of the people is concerned and in the betterment of national life. The economic values of the parks as a means of attracting tourist travel have been pointed out many times before. So long as the national parks movement was in its infancy it was perhaps necessary to emphasize this aspect of their value. To-day, when this is so widely recognized, it is perhaps permissible to point out that there are other values, equally if not more important, in the long run. Already the national parks are arousing a new love and pride of country. They are stimulating a love of natural beauty and enjoyment of the wild places of this continent. Like great works of art, they are enriching the emotions and stimulating the imaginations of many and so helping to build up that finer cultural background which is necessary if Canada is to be a great nation among the nations of the world.

SCENIC PARKS

BANFF NATIONAL PARK

Banff national park formerly known as Rocky Mountains park had again a most successful year. Tourist travel was the heaviest yet recorded both by rail and motor. The total number of cars, east bound and west bound, passing through the Kananaskis gateway was 67,836 an increase of 14,473 cars over the previous year. The heaviest registrations were as usual from the four western provinces, showing that the park is fulfilling a democratic use and serving to meet the recreational needs of the western half of the Dominion. A new daily record for the number of cars passing through the Kananaskis gateway was established on July 2 when 2,088 cars registered travelling in both directions as compared with the previous record of 1,533 cars on July 3, 1927. A new week-end record was also established from June 30 to July 2 when 4,184 cars passed through this gateway as compared with the previous week-end record of 3,731 in both directions established July 1-3, in 1927.

Coincident with the large increase in motor travel has been the number of bathers at the government hot springs. At the Cave and Basin bathing-house registrations showed 71,952 as compared with 66,233 in the previous year, an increase of 5,719. The number of visitors to the Cave, adjacent to the hot springs, was 69,209. At the Upper hot springs the total number of bathers was 47,536 as compared with 41,055 for 1927-28, an increase of 6,481. The new motor campsite at Tunnel mountain also showed increasing popularity. During the season 7,271 cars and 26,095 persons camped at this site as compared with 6,017 cars and 21,620 persons in the previous year. A new record was established at this campsite on the night of July 15, 1928, when 685 cars and 2,940 persons were accommodated.

Museum, Zoo and Animal Paddocks.—For some reason less interest was manifested in the Banff Museum; the number of visitors totalled approximately 21,000 as compared with 30,000 in the previous year. The season of 1927-28, however, had shown an increase in visitors of 100 per cent so that a certain falling off was to be expected. The Banff Zoo was again the centre of interest for thousands of visitors to Banff. The number of animals now encaged includes: 1 polar bear, 2 grizzly bears, 3 black bears, 1 cinnamon bear, 2 mountain lions, 1 Canada lynx, 1 bobcat, 4 timber wolves, 4 coyotes, 1 wolverine, 1 badger, 2 martens, 2 gophers, 1 porcupine, 2 great-horned owls, 1 peacock, 2 golden eagles and 3 Canada geese. The exhibition herds of animals in the pad-

docks are in good health. At the present time they include 20 buffaloes, 21 elks, 12 Rocky Mountain sheep, 7 angora goats, 9 four-horned sheep, 1 Rocky Mountain goat and 6 yaks.

Permits and Licences.—Permits and licences covering the various business activities carried on in the park totalled 18,647. Of these 16,709 were motor licences for transients. Motor licences for park residents numbered 580; guides' licences 44; chauffeurs' licences 283; restaurant and tea room licences 40.

Fire Protection.—Owing to the wet spring the fire hazard was greatly mitigated during the tourist season. A few small outbreaks occurred but caused no serious damage. The Banff Volunteer Fire Brigade responded to 11 alarms, total losses amounting to \$1,079.

The brigade now numbers 24 officers and firemen. A night patrol was maintained by the local detachment of the R.C.M.P. in the townsite.

Mosquito Control.—Owing to a late spring, mosquito larvae first appeared about the end of April, over a month later than usual. On April 26 three men were set at work distributing oil over the areas affected. An additional man was sent out on May 29 and work was carried on till the end of July. A total of 2,785 gallons of oil was used and about four pounds of pyrethium. The latter appears to promise good results. Mr. Arthur Gibson, Dominion Entomologist, and Mr. Eric Hearle, assistant, in charge of the work at Banff, made an inspection of the progress of the campaign in the park. Satisfaction was expressed that the fish "*Gambusia affinis*," which had been deposited in the small pool above the Cave and Basin bathing-house some years ago, have multiplied tremendously and are now found in great numbers in Sulphur swamp below the Cave and Basin. These fish are the greatest natural enemies known to the mosquito larvae and if it is possible to acclimatize them so that they will live in these cold-water swamps, a great decrease in the mosquito nuisance will undoubtedly result.

Public Health.—The public health was very good in Banff during the past year. The regular garbage collections were made during the summer. The dairy herds in the national park were tested during the year with the intradermal test for tuberculosis and all were found healthy. Samples of milk and water were also submitted periodically for analysis and the returns were satisfactory in every case.

JASPER NATIONAL PARK

Jasper park had a year of great activity. The total number of visitors was placed at 12,000, of these 7,568 registered at Jasper Park Lodge. This hotel was crowded through the season and it was again found necessary to increase the accommodation. The new golf links in this park attracted a great deal of notice among expert players, many of whom spent their holidays in Jasper upon the links.

Many improvements were made in Jasper townsite to accommodate its rapidly increasing population. The system of boulevards begun on a number of streets last year was completed, additional six-foot sidewalks extending more than a mile and a third were laid, a large number of pine and spruce trees and ornamental shrubs were planted, and enamel street signs erected. The electric and water services were considerably extended and four new hydrants erected, making a total of 18 now in the townsite.

New Buildings.—Building operations in Jasper included 14 new residences, 8 stores and business premises, 1 new bank, 1 new church and a number of garages and small buildings. The estimated cost was approximately \$150,000. In addition the Canadian National Railways took out permits for extensions including 4 four-room cabins, 3 ten-room cabins, 1 twelve-room officers' cabin, 1 sixteen-room help building at a total cost of \$111,000. A new log chalet of substantial design was erected at Maligne lake and a tea room near mount Edith Cavell.

Roads and Bridges.—The experimental stretch of tar pavement surfaced with McMurray tar sands on the Maligne highway between Jasper and the Lodge, stood up well. On the rest of the road gravelling was done where necessary and at Mile 7½ relocation was made, straightening a bad curve; 710 feet of guard rails were erected, and 100 feet of cribbing put in. The Edith Cavell road was in good condition during most of the season with the exception of the last few weeks. Additional guard rails to safeguard traffic were constructed on the Astoria hill.



On Pocohontas Highway, Jasper National Park.

A new bridge with concrete abutments was erected over the Miette river as the old log bridge at this point had become unsafe. The central span is 90 feet clear. The wooden bridge spanning Cottonwood creek was extended to a width of 18 feet and the last section of the highway widened to bring it up to a standard width. Construction was undertaken of a tote road from the Astoria bridge on the Edith Cavell highway down the steep and irregular slope to the Athabaska river, and along the flats for three-quarters of a mile. From this point cutting and clearing work was done, joining up with work done last year near Smoky Hollow. The continual wet weather in the early spring undermined the side banks along the tote road to Medicine lake and a great deal of attention was necessary to keep it open for travel. This road was in continual use by cars and proved of great convenience to tourists. A new horse trail and footpath which will add to the pleasure of visitors was constructed from a point near the railway crossing at Jasper to Jasper Park Lodge. Another popular trail was that constructed from the Maligne canyon down the Maligne river to the existing bridge, near its mouth. This trail furnishes a delightful morning or evening canter. Bridges over Maligne canyon were strengthened and a guard rail was erected on the sloping rock bank just below the Tea Room, where one of the finest views of the canyon may be obtained.

A standard trail was commenced from Jacques Lake cabin down Jacques creek and south east along the Rocky River valley. It is intended to extend this trail next year to the Rocky River cabin, Number 7, about 12 miles from the present end of the trail. There are now 360½ miles of standard trails in Jasper park; and 277 miles of "pack", or second class trails. A new trail bridge was built over the middle fork of the Whirlpool river on the old trail leading to the Committee Punch Bowl. Telephone lines in the park now total 343 miles. New buildings included new warden's cabins at Devona and Snaring, a government stores building at Jasper, and an implement shed.

Sanitation.—A new sewer was constructed and the usual routine of garbage collection, cleaning up of lanes, and removal of ashes was carried on during the year.

Horses.—There are now seventy-four draught, saddle, and pack horses and four colts in the government stables and corrals in Jasper park.

Fires.—There were seven railway fires during the season, all of which were caused by sparks from locomotives. The areas burnt over totalled approximately 36½ acres and the cost of extinguishing was \$17. A few small outbreaks occurred in the townsite, but these were promptly extinguished by the wardens and fire brigade before any serious damage was done.

Wild Life

A steady increase in all species of game is noticeable in the park and the young appear to be healthy and in good condition. Owing to the heavy rainfall in the early summer months, grazing was good everywhere and the animals came though the year in an unusually good condition.

Elk.—Elk are noticeably increasing and are finding new feeding grounds all over the park. Large herds have been seen almost daily at Cabin creek, near the golf course and along the Athabaska and Miette valleys. The largest herd ranges between Pyramid mountain and Cabin creek. The supervising game warden estimates that there are between 2,000 and 3,000 now in the park.

Sheep.—There was an average increase in sheep during the year. They are now spreading all over the park wherever they can find suitable ranges. Practically all the ranges from Sunwapta to Brûlé are sheep-feeding grounds, and a large flock has been seen regularly at Cavell bridge on the motor highway, where they are a great attraction to tourists. Large flocks were also seen at Pocahontas, Brûlé, the shale banks of the Snake Indian river, along the Snaring river, at Buffalo prairie, and Brazeau lake. A very fine herd of from 70 to 100 can be seen almost daily on the Maligne range. Hunters north of Jasper park this season spoke in high terms of the satisfactory overflow of sheep from the park to these areas. It is estimated that there are approximately 18,000 sheep now in the park.

Goat.—Goat are also multiplying rapidly and are in fine condition. A large herd is almost always to be seen at the shale banks of the Snake Indian river and others on the Smoky river, on mount Kerkeslin and the Colin range. They are also found in increasing numbers between Circus valley and Whistler mountain, but there they keep to high altitudes. From 4,000 to 5,000 are believed to be within the park.

Bear.—Black and grizzly bear are increasing everywhere. The latter seem to be more numerous on the Moosehorn creek but they are difficult animals to keep track of as they travel widely and it is believed that those seen in the Snake Indian may range as far as the Moosehorn valley. The whole of the park is adapted to grizzlies and they travel in and out of the park according to food and weather conditions. The number of bear in the park is placed at from 3,000 to 4,000.

Moose.—Moose are very plentiful and are now ranging in practically every valley. A particularly fine bull was seen on the townsite of Jasper last summer. Hunters have reported also that fine specimens have overflowed from the park on the northern boundary. Their numbers are placed at approximately 8,000.

Deer.—The season was particularly good for deer and they showed a marked increase. They now inhabit practically every valley in the park and are especially numerous along the Athabaska. The wardens estimate that there are 20,000 deer in the park.

Caribou.—Caribou are in good condition. They are found along the northern boundary near Byng pass and Twin Tree lake. Quite a few are also to be seen along the Smoky river and there are fully 300 in the Tonquin valley. Fine heads were brought in by hunters from the hunting grounds north of the park during the past autumn. It is difficult to arrive at the number of caribou in the park but the wardens consider 8,000 a fair estimate.

Fur-bearing Animals.—Beaver, marten, lynx, and coyote are reported to be more numerous and fresh beaver houses and dams were noticed on several creeks.

Game Birds.—Game birds, such as partridge, grouse, and prairie chicken, appear to be suffering a good deal from the increase of marten, lynx, and other predatory animals and the wardens report that they were seen in much smaller numbers this year.

Fish.—Fishing was reported as very good. Fine catches were made at Caledonia lake, Wabasso lake, Jacques lake, at Buffalo prairie and in the Brazeau and Upper Snake Indian rivers. The speckled trout fry deposited in Maligne lake in June did exceptionally well. A further shipment of 250,000 eggs was received in January. These are now being hatched and will be deposited in Maligne lake as soon as the ice goes out.

Alpine Climbing.—Dr. S. Kitada of the Imperial University of Japan, noted Japanese climber, spent some time in the park and made a record ascent of mount Edith Cavell in four and a half hours by the east ridge. Dr. Kitada plans to return with a party of students next year and to visit the Columbia Ice-field.



On the Golf Course. Waterton Lakes National Park.

WATERTON LAKES PARK

Until this year the roads leading into Waterton Lakes park were not of a satisfactory character. While they were in good condition during the dry weather, in heavy rains they became almost impassable. Last year, however, the road from Cardston to the park, which connects with the motor highway leading into the United States, was gravelled by the provincial authorities as well as the provincial road from Cardston to Macleod. The park was thus connected with roads to the south and with a good gravel highway as far north as Edmonton. While the weather was unfavourable during June, the months of July and August were extremely pleasant and in consequence the park had the heaviest season in its history.

In the townsite the streets were kept in good condition, necessary grading and gravelling were done and the dust nuisance was kept down during the dry weather by the use of oil. New sidewalks were laid, tree planting along the streets was continued and an attractive display of flowers was maintained in the flower beds throughout the season.

The Prince of Wales hotel was opened for the first time for the entire season and for a great part of the time was filled to capacity. New buildings included a barracks for the Royal Canadian Mounted Police, which was surrounded with well laid out grounds; a new fish hatchery near the Pincher Creek entrance to the park and a number of new cottages.

The Waterton Lakes hotel was practically reconstructed during the year and a new wing added. An addition was also made to the park administration office and the golf club house. The roads within the park were maintained in good condition and improvements were undertaken on the Pass Creek road which is one of the most popular drives in the park. This road now gives ready access by automobile to the interesting Red Box canyon, which is always an interesting objective for tourists.

Further surfacing and completion work was done on the Akamina road and cars can now travel in comfort ten miles to Cameron lake, one of the beauty spots of the park and a favourite resort of anglers. A new trail was constructed to Carthew lake opening up a section of the park previously unknown to the tourist.

The golf club and tennis courts were well patronized as were also the bathing-house and bathing-beach at Linnet lake. Fishing in the main lake and in the various smaller lakes and streams was stated to be exceedingly good while fine catches were reported from Cameron lake, Bertha lake, Twin lakes, Belly river and from Pass creek.

A through bus service was maintained during the season connecting this park with Many Glaciers in the United States Glacier national park and hundreds of visitors availed themselves of this opportunity of visiting the adjoining playgrounds. A new motor launch capable of carrying 250 persons was also placed upon the Upper Waterton lake and made trips daily between the two parks.

Wild life of many kinds appears to be on the increase. Black bear, coyote, and weasel are plentiful in all districts. Mule deer and elk are to be seen in good numbers, while rabbits are not so numerous as last season.

There would appear to be a decrease in the number of mountain sheep this year. This is no doubt due to a series of spring storms which reduced the number of young lambs and proved dangerous to the mothers. Goat appear to be holding their own; bear and elk are noticeably on the increase. Beaver are particularly numerous and it is estimated there are now 1,500 in the park.

KOOTENAY NATIONAL PARK

The Banff-Windermere highway opened early in May and travel at once began to the park. No register is kept of cars entering at the Vermilion Summit boundary since these have already registered at the Kananaskis or Leanehoil gateways. Registrations at the Sinclair Canyon gateway are given in the traffic tables at the beginning of this report.



Park Entrance, Kootenay National Park.

The new bathing-house at the Sinclair Radium hot springs was completed and opened to the public on June 1. From that date to the end of the season, 21,038 bathers made use of the baths. During the month of October the bathing-house was closed to allow the making of an extension of thirty feet to the pool, bringing the total length up to one hundred and ten feet.

A new parking area in the immediate vicinity of the springs for the use of visitors to the baths was cleared. Improvements were made to the existing

Floe Lake trail and a new trail was constructed from McLeod meadows to the park boundary up Deer creek. Sinclair Canyon campground proved very popular and was filled to capacity every night during the holiday season. One new camp shelter was erected at Dolly Varden creek.

No fires of any importance occurred in the park. There were several small outbreaks but these were extinguished without any damage being done.

Game, for some reason, was not so plentiful during the past season as previously but along the Kootenay valley, bear, elk, moose, and other game have increased. Hunting was very good outside the boundaries of the park during the hunting season.

YOHO PARK

Motor travel to Yoho national park totalled 7,106 cars carrying 24,140 persons. The season from the park point of view was an ideal one. There was a good deal of wet weather in May and June which enabled the staff to get the roads into first-class condition and obviated the danger of forest fires. The atmosphere throughout the summer was at all times clear and free from smoke, affording excellent opportunities for those who wished to take pictures, as well as giving tourists excellent views of the mountains practically all the time.

During the past few years the improvements in the townsite of Field have been very marked. Little by little undesirable buildings have been torn down and replaced by better ones. The town streets have been planted with new trees and old trees topped and pruned. The road surfaces have been regraded and kept oiled. The main road through the park, known as the Kicking Horse Trail, which forms part of a transmontane highway, is under the supervision of the Highways Engineering Division of the Head Office staff. Accordingly the attention of the park staff was chiefly devoted to the Emerald lake and Yoho extension roads. In the spring a caterpillar tractor was purchased by the department which proved of very great assistance in the road work, being much more efficient and economical than horses.

On the Emerald Lake road a good deal of widening was done, new bridges were constructed and curvatures reduced. On the Yoho road an additional mile was widened.

No serious accidents of any kind occurred on the park roads during the summer. This year through the co-operation of the Royal Canadian Mounted Police a special motor cycle patrol was maintained on the park roads. This greatly assisted in reducing cases of speeding by reckless drivers and no doubt accounted for the absence of accidents.

Early in the year a new tourist camp was established on the Emerald Lake road about one mile west of Field on the Kicking Horse flats. The ground was laid out in lots and two shelters were erected with cooking stoves and sanitary conveniences.

The heaviest traffic to the park was from the east, entries by the Kicking Horse pass showing 4,726 cars and 15,818 persons; of these 3,714 cars were Canadian and 1,012 foreign. Eastbound cars totalled 2,380, carrying 8,322 persons; 2,029 Canadian and 351 foreign.

A new trail which will be of interest to tourists was constructed from Surprise point at the summit of Burgess pass down the northern slope of mount Burgess towards Emerald Lake Chalet. This trail provides a northern route from Field to the Chalet. It also will be useful as a fire trail by making accessible a large area of timber. The trails to the Fossil beds, Burgess pass, Cathedral cut-off, Summit lake, Emerald lake, President glacier, Twin falls, and the Amiskwi were also gone over and put into good shape.

It is noticed that trail riding is on the increase in this park. Between sixty and eighty ponies were kept in the park for livery purposes throughout the season.

One new warden's cabin was erected near Kiwetinok creek and one near Tallon creek.

The growth of the townsite to the east necessitated some protection work being done on the banks of the creek in this district. A mattress of brush and rock was constructed along the river bank for a distance of 620 feet to prevent encroachment of water on the land during flood periods.

Wild life in the park appears to have held its own, so far as numbers are concerned, during the past year. Fifteen moose were reported as having been shot immediately outside park boundaries during the hunting season. Fishing in the lakes and streams of the park was better than ever before and a number of good catches were reported, particularly from Wapta lakes. Twenty thousand rainbow trout fry were distributed in the park waters from the Banff hatchery. Of these 12,000 were placed in Cataract creek and 8,000 in Summit lake.

Fire outbreaks were very few, owing to the favourable season, and the total cost of protection amounted to less than two hundred dollars.

GLACIER NATIONAL PARK

Owing to the fact that the Canadian Pacific Railway hotel at Glacier was again closed, the year was a quiet one in Glacier park so far as tourist travel was concerned. During the summer the company dismantled the old building and removed all furniture and permanent fixtures such as baths, etc. Plans for a new hotel of the bungalow type, it is understood, are now in preparation.

As early as possible in spring the road gang started on repairs to roads. The Station road, Nakimu Caves road and the Rogers Pass road were cleared out and repaired. The Asulkan, Caribou, Flat Creek, Illecillewaet, Mount Hermit, Great Glacier, Beaver River, Grizzly Creek, Bear Creek and Prairie Hills trails were gone over and underbrushed. One new trail was constructed up Mountain creek for a distance of four miles for fire protection purposes. A warden's cabin was constructed in Beaver valley near Grizzly creek, a small frame storehouse at Glacier and a fire equipment house on Flat creek.

At the Nakimu caves exploration work was again carried out. Attention was chiefly devoted to working through to the Number Two entrance via the "Ball Room", with a view to providing another exit from the lower caves and obviating the use of the St. Peter's stairway, which involves a climb of about 120 feet to the upper level. This passage, which was successfully made opens up what is apparently the largest cave yet discovered, immediately inside the Number Two entrance. It has been named "Satan's Palace". Visitors registered at the caves totalled 170.

Game is reported as being on the increase, particularly fur-bearing animals. Bears are plentiful; several which caused annoyance at the Canadian Pacific Railway construction camps had to be destroyed.

No fires occurred in the park during the year.

MOUNT REVELSTOKE PARK

In April work was begun on the lower portions of the Mount Revelstoke highway. The side ditches and culverts were cleared out to be ready for the flooding waters caused by the melting snows and as the snow retreated the road gang worked upward making repairs as they went. In July, under the supervision of head office engineers, work was begun on the extension of the highway. The portion of the new road completed in 1927 was first surfaced and then the extension from Balsam lake to the summit was proceeded with. A small portion of this road which will end with a loop at the summit near the forestry lookout station still remains to be completed next year.

A motor tourist camp was laid out along the shore of Balsam lake, a beautiful spot in the midst of a magnificent wild-flower garden with open views in all directions about three-quarters of a mile from the terminus of the road. A community kitchen was built and other necessary conveniences provided. A warden's patrol cabin was erected at Eva lake. The new boundary line on the west, including the area added to the park in 1927, was cut out and boundary sign notices posted up at various points. An additional two and a half miles was completed on the Clach-Na-Cuddin trail begun last year. This trail will be very useful in case of fire as it gives access to a heavily timbered area. Now that motors can easily reach the top of the mountain there is an increase in travel over the park trails particularly the trail to Eva and Millar lakes. On the ski hill a new stand for the accommodation of press representatives and distinguished guests was erected opposite the judge's stand. This was substantially built, roofed in, and protected from the weather on two sides. Further work was done on the runway at the bottom of the big hill altering the grade and levelling up the surface. The annual ski tournament took place on the 12th and 13th of February and as in former years was well attended and keen interest was shown in the various competitions although no new records were made.

Bear, grouse and partridge are plentiful in the park.



Sunset—Lake LaVallee, Prince Albert National Park.

PRINCE ALBERT NATIONAL PARK

Prince Albert national park was officially opened to the public on August 10 and 11. A committee of prominent business men in Prince Albert took charge of the ceremonies and of all arrangements in connection with finances, accommodation, catering and the program of sports.

On Friday, August 10, the Prime Minister and his party arrived in Prince Albert. He was met at the station by the Hon. Charles Stewart, Minister of the Interior, the Hon. T. C. Davis of Prince Albert, several members of

Parliament and of the Legislative Assembly. Weather conditions were ideal. The party left immediately for the park which was officially dedicated by the Prime Minister. After the opening had taken place an interesting aquatic sports program was carried out and a cottage presented to the Prime Minister by his constituents. The ceremonies were attended by more than 2,500 people.

Building Areas.—A business subdivision and a residential subdivision at Prospect Point were thrown open for entry during the summer. Eighteen residential lots were filed on and it is expected that several cottages will be erected early in 1929. Many of the inquiries relative to lots have been in connection with that portion of the lake from King island west. Contour surveys were made of this section and it is expected that lots will be available early next year. In the business area five lots have been filed on, and the firms obtaining these lots intend to build early next year.

Campgrounds.—In addition to the main campground on Waskesiu lake, which is now one of the best in Saskatchewan, small campgrounds were cleared and cleaned up at the ends of each portage.

Tourist Traffic.—Although road conditions were not good and any stay in the park involved camping out, 1,304 cars, containing it is estimated 5,018 people, entered the park during the season. The majority of these visitors camped along the main beach.

Fires.—The spring and early summer months were very dry and there was constant danger of forest fires, a number of which occurred along the southern boundary of the park. The total number of fires during the period from April 1 to December 31 was eight; the cost of combatting them, including warden labour, was \$952.15.

Biological Survey.—The possibility of introducing game fish into the lakes and streams of the park was considered. In order that information in regard to the conditions might be obtained, a biological survey was begun and will be continued in 1929.

Roads.—When the park was established the only means of access was an old logging road in very bad condition. Work was immediately undertaken to bring it up into a condition suitable for motor traffic. The construction of a new highway was then started and thirty-two miles of new grade were completed. This new road has been carefully located in regard to both engineering problems and scenic advantages.

Game.—The increase in wild life within the park is already very noticeable, particularly so in the case of moose. These animals are so numerous that it is not unusual to see from eight to twelve in one herd. It is also interesting to note that all wild life is becoming tamer, a happy condition which is particularly noticeable in the case of mule deer. These animals seem to have almost entirely lost their fear of motor cars and people and consequently they are frequently seen by tourists.

Radio Station.—At first one of the great inconveniences was the lack of telephone communication between Prince Albert and the park. This condition has been overcome by the construction of a wireless station at Waskesiu, and another station in Prince Albert for the joint use of the Forest Service and the National Parks Branch.

Buildings.—During the summer, a storehouse and a boathouse were built at Waskesiu lake. In addition three shelters and one service building were constructed in the main camp grounds at the same place. A warden's cabin was built on Crean lake. This provides a stopping-place for the warden patrol which previously was without shelter at this point.

Lectures.—In the early part of April, a lecture tour through Saskatchewan was arranged, illustrated by slides and moving pictures of the Prince Albert park. Fourteen lectures were delivered at the following towns and cities: Melville, Yorkton, Regina, Swift Current, Saskatoon, North Battleford, Melfort, and Prince Albert. Inquiries as to future lectures were numerous.

ANIMAL PARKS

BUFFALO PARK

The animals in the park have come through the winter in splendid condition and owing to improved pasture conditions last summer and the nature of the season, the herd required very little feeding during the winter. The following table shows the animals in the park on March 31:—

Buffalo.....	4,300
Elk.....	565
Moose.....	60
Mule deer.....	1,824
Antelope.....	1
Yak.....	30
Domestic cattle.....	12
Mixed stock.....	38
Total.....	6,830

Farming operations were carried on as usual. Approximately 500 acres were in crop and of this 100 acres were seeded down to grass. About 50 acres of the crop were left for green feed and from the remainder 18,575 bushels were threshed. This yield was sufficient to meet all requirements of this park and allow a surplus of about 10,000 bushels for shipment to other parks. In addition to the above about 350 tons of straw were secured which will make splendid feed for the animals.

Conditions were exceptionally good for putting up hay. There was plenty of moisture in the early part of the season to keep the Ribstone meadow well flooded with the result that there was good growth and, as there was little rain after haying operations began, one of the largest yields in the history of the park was secured. The total cut for the season was approximately 1,500 tons, of which 1,450 tons were procured from the Ribstone meadow.

On June 11 the first shipment of buffalo for the season went forward from Wainwright to the Wood Buffalo park on the Slave river and weekly shipments followed until July 2. This year's consignment totalled 1,088; it was made up of 1,009 yearlings and 79 two-year-olds. So successfully was the work of rounding-up, corralling and loading these animals carried out that only two were lost.

There was also a shipment of two young buffalo, male and female, to the city of Johannesburg, South Africa. These were forwarded from Wainwright in October and were shipped from the port of Montreal. Three buffalo were sent to the Italian Government, and six buffalo, three elk and three mule deer to the Moose Jaw Wild Animal Park.

Fencing.—It was necessary to go over all the main fences as well as cross fences which meant the repairing of approximately 100 miles of fence. In addition to the repair work a total of two miles of new fence was erected to include in the park section 25, township 44, range 7, west of the 4th meridian, which was obtained recently. A number of posts in connection with telephone service were replaced, this work being carried on in conjunction with the fence repair work.

Fire Protection.—Fireguards, both inside and outside the main fence as well as most of the inside guards, were ploughed and with the exception of a few miles along the west boundary, the ploughing was done by park teams. Two

new portable fire units were supplied last spring. One was placed at the Home Paddock and the other at the farm.

Roads.—The construction of a new road from Wainwright to the Home Paddock entrance gate was completed in the early part of the season.

Buildings.—A pavilion was erected at Mott Lake picnic grounds. A new fireproof pump-house and a small building for storing ice were also built at the farm. Considerable improvements were made in the way of re-decorating and painting buildings.

Dry wood timber permits were issued to settlers living close to the park for 275 cords, also for 4,500 green willow pickets.

Predatory Animals.—Coyotes were not nearly so numerous in the park as in other years and several of those destroyed were affected with mange. Altogether 32 were shot by the wardens.

Visitors.—There was a noticeable increase again this year in the number of visitors to the park. The actual numbers of those visitors who recorded their names in the registers kept at three of the park gates were as follows:—

Wainwright gate (Home Paddock).....	15,310
Hardisty gate.....	1,933
Farm gate.....	1,211
Total.....	18,454



Elk—Buffalo National Park.

ELK ISLAND PARK

Visitors to Elk Island park totalled 18,968. While most motorists are attracted to the park by the fine herds of animals it contains, the beach and picnic grounds are also a great attraction to local visitors, and they were largely patronized throughout the season. The buffalo herd in this park is in splendid condition and pastured out on the range throughout the whole winter: 230 buffalo were killed, 200 for meat and hides and 30 aged bulls to improve the condition of the herd. Animals in the park at the close of the fiscal year were: 593 buffalo, 400 moose, 453 elk, and 200 deer.

The main fence was gone over and old posts replaced where necessary. A new enclosure near headquarters covering approximately half a section was fenced in. Another enclosure at the south end which was required as a corral during the round-up was also fenced. The existing fireguards were kept in good condition by ploughing and five miles of additional guards constructed along the west boundary.

A very luxuriant growth of grass and pea vine provided good grazing for the animals. About 500 tons of hay were stacked, providing a supply of feed ample for the year's requirements.

The roads in the park were gone over with a grader and kept in as good condition as weather permitted. Reconstruction was begun on the road from the north gate to Sandy beach and four miles were completed before the ground became frozen in the autumn.

Bird life appears to be increasing although prairie chicken seem scarcer than formerly. The blue heron, however, continues to nest in numbers on Crane island and migratory birds showed an increase in numbers. A few partridge were seen in the park during the summer. Fishing was good in Astotin lake and the pickerel and perch placed there in 1927 appear to have done well.

NEMISKAM PARK

Conditions during the early winter at Nemiskam were ideal, with no snow and abundant grazing, and the animals were accordingly in fine condition to withstand the more severe weather which was experienced in January and February. During February it was necessary to feed some hay to the animals. The antelope herd, however, all came through in good condition with the exception of six killed by coyotes. Keeping down these latter animals is one of the most difficult problems connected with the park but it is hoped shortly to devise means of solving it.

HISTORIC PARKS AND RECREATIONAL AREAS

FORT ANNE HISTORIC PARK

Visitors to Fort Anne national park, Annapolis Royal, Nova Scotia, numbered approximately 16,000 in the past year. Of these 11,390 registered and were shown through the museum, an increase of 1,603 over the previous year.

An attractive bridge over the moat was completed early in April.

On June 11 the Historical Association of Annapolis Royal formally unveiled and presented to the museum of Fort Anne park a portrait in oils of Jean Paul Mascarene, the officer, then a captain, who mounted the first British guard in this fort when the place was taken by the British in 1710. Mascarene remained at Fort Anne for forty years and played a very important part in its history.

The foundation of the Vetch memorial was laid on July 25 and completed August 1. The formal unveiling took place September 22 and was performed by Mrs. Robert Weeks Kelly of New York, a direct descendant of Samuel Vetch. Mrs. Kelly has since presented to the park museum the original commission appointing her distinguished ancestor Adjutant-General of the force which captured this place in 1710. A portion of the writing is illegible, but the Queen's signature "Anne R" is as distinct as on the day it was written. Other acquisitions to the museum during the year included some valuable and interesting pictures, documents, and books, and some additional specimens of local birds.

POINT PEELE PARK

Visitors to Point Pelee park last year totalled approximately 50,000, practically all of whom came by motor. While no register is kept at the park, the warden estimates that the number of cars entering from April 1 to December 31

was approximately 12,525. The number of campers who took out permits for less than a four days' stay was 275. Of these 75 came from Ontario and 200 from the United States. Camping permits for more than four days numbered 44; 22 from Ontario and 22 from United States. In view of the large patronage which this park receives from United States visitors it is expected that the completion of the tunnel at present under construction from Windsor to Detroit will greatly increase travel to the park. During the year underbrushing was widely undertaken which greatly improved the appearance of the groves, and early in the spring 950 young trees of willow and hackberry were set out. Six hundred of these were planted along the east beach where they will protect the shore line as well as improve the general appearance of the park. Thousands of migratory birds visited the park during the spring and fall migrations and wild geese were noted to be particularly abundant in the autumn. Permits to the number of 259 to shoot wild duck during the open season from October 1 to December 1 were issued. This is a smaller number than in the previous year. Squirrels are somewhat fewer in numbers in the park. Golden pheasant, however, are as plentiful as ever. The racoon are increasing, and quail appear in larger numbers each year. These increases show that the park is fulfilling the purpose for which it was created, in so far as the conservation of wild life is concerned.

VIDALS POINT RECREATIONAL AREA

The number of people to Vidals Point is steadily increasing. During July and August last year it is estimated that approximately 15,000 persons visited the reserve, the heaviest week being from July 21 to 28 when about 3,000 visitors entered the area. The beach was kept in good condition throughout the season and all camps and camp sites inspected and kept free from litter. Buoys, danger signals, and a diving platform were placed in position for the convenience of swimmers and a new well was sunk for campers' use. There was good fishing on lake Katepwa.

Protection of Migratory Birds

ENFORCEMENT OF THE MIGRATORY BIRDS CONVENTION ACT

In July, 1928, amendments were made to the regulations based on the Migratory Birds Convention Act, following suggestions from the different provincial game officers and the chief federal migratory bird officers. These included:—

For all Canada: A closed season on wood duck for a period of three years. In order to clarify the conditions with respect to the transportation and shipment of protected birds, the section pertaining to this matter has been revised. Following a resolution of the Provincial-Dominion Game Conference a provision was made in the regulations which will enable agriculturists to secure relief more rapidly when certain birds are found seriously damaging their crops. Several minor changes were made as well, and a consolidation of the Migratory Birds Convention Act and of regulations containing these amendments was printed and distributed prior to the opening of the hunting season.

For the province of British Columbia: The opening of the season on band-tailed pigeons, a revision of the districts, making general the prohibition of the use of the rifle in hunting migratory game birds, a change in the season for black brant, and a restriction respecting the time at which migratory game birds may be shot on the first day of the open season.

For Alberta: The dividing of the province into two zones, the season in the northern zone being two weeks earlier than formerly.

For Ontario: The dividing of the province into two zones, the season in the southern zone being two weeks later than formerly.

For Nova Scotia: A change in the open season for ducks and rails in Cape Breton island, and a special provision respecting the excavating of duck shooting blinds and sinking of casks or boxes in the tidal flats of Goose bay, Little River harbour, and at the mouth of Lobster bay.

The staff enforcing the Migratory Birds Convention Act continues at the same strength as last year, and complete co-operation with provincial game departments has been enjoyed. The enforcement of bird protection measures has been left largely in the hands of the provincial authorities in accordance with the original plan, and thus duplication is avoided.

In addition to the provincial officers who are enforcing the law, some hundreds of honorary game officers co-operate in this connection, and furnish this office with valuable information respecting bird conditions in their localities. Honorary officers are kept informed through a system of circular letters. The officers of the Royal Canadian Mounted Police have helped materially by enforcing the law and by conducting bird observations in various districts. Dominion fishery officers lend valuable assistance.

A staff of officers is maintained in the Maritime Provinces for enforcement of the migratory bird law. The Chief Federal Migratory Bird Officer for the provinces of Ontario and Quebec, protected, with the aid of a staff of temporary assistants and the bird sanctuary caretakers, the abundant sea-bird life on the north shore of the gulf of St. Lawrence in Quebec. The Chief Federal Migratory Bird Officer for the Western Provinces, while devoting much time to co-operative measures with the provincial game departments has been occupied as well in supervising the sanctuaries and public shooting grounds in these provinces and in making patrols.

Seventy-two prosecutions were instituted by Dominion officers in connection with the enforcement of the Migratory Birds Convention Act. These resulted in sixty-eight convictions. Fines imposed amounted to \$757. Prosecutions instituted by provincial officers are not included in this summary.

The department has worked in conjunction with the Department of Marine and Fisheries in seeking ways and means for preventing loss of bird life caused by oil dumped from vessels in navigable waters, or reaching navigable waters in other ways. Following a conference at Washington, in which Canada took part, a Draft Convention on oil pollution of the high seas was prepared, and an Order in Council has been passed authorizing the Hon. Vincent Massey, Envoy Extraordinary and Minister Plenipotentiary at Washington, to sign it on behalf of Canada.

This branch has undertaken a waterfowl census in conjunction with the Biological Survey at Washington. The purpose of this investigation is to determine, as nearly as possible, the abundance from year to year, distribution, and migration of the different species of ducks, geese, swans, and coots that inhabit North America. By having as many observers as possible throughout the United States and Canada making comparative counts, each on one area, month after month, it is hoped that it will be possible to tell approximately whether waterfowl are abundant or scarce in any locality after two or three years' records are available.

Permits and Licences.—Permits and licences were issued as follows (calendar year):—

Collection of birds for scientific purposes.....	263
Possession of birds for propagating purposes.....	481
Capture of birds for propagating purposes.....	36
Destruction of certain birds when found to be seriously damaging agricultural or fishery interests.....	72
Collection of eider-down.....	4
Special permits.....	12
Taking of birds for banding purposes.....	113
Practising taxidermy.....	76
Shooting of geese and brant in Shelburne and Queens counties, Nova Scotia, in the open season provided by law.....	472

Bird Banding.—Through bird banding, much valuable information is being secured concerning Canada's birds. The branch is co-operating with the United States Biological Survey in tracing and recording migrations of birds by the banding method, nearly all the field work being done by voluntary co-operators. The official records of bird-banding returns which concern Canada are kept in this branch. From January 1, 1928, to December 31, 1928, 10,557 records of birds banded by Canadian co-operators and 2,524 repeats and returns on banded birds were received. In addition to this, one of our most active operators has banded 3,600 birds during the year 1928, and secured during that year many returns of the birds which he had previously banded.



Canada Geese on a protected Pond near Port Stanley, Ont.

Bird Sanctuaries.—Recommendations have been made that sanctuaries be set aside for birds in goose concentration points in southern James bay, as it is expected that a large influx of hunters will go into that district by the new railway. This has been referred to the game administration officers of Ontario and Quebec. The shooting of wild ducks and wild geese on Many Island Lake and Lac La Biche bird sanctuaries, has been allowed during the regular open season.

The United States Congress has recently enacted legislation (the Norbeck-Andresen Act) under the Migratory Birds Treaty which provides for the appropriation of approximately eight million dollars for the purpose of purchasing and maintaining waterfowl refuges in the United States. These refuges will be of great value to waterfowl, and the bird life in Canada will consequently benefit.

Public Shooting Grounds.—Fifty-one public shooting grounds, consisting of marshy areas, have been reserved: thirty-two in Alberta; twelve in Saskatchewan; and seven in Manitoba. These continue to afford free shooting in season to the public. The game protection authorities of British Columbia have recommended the reservation of Pitt lake as a public shooting ground, and steps have been taken to comply with this recommendation. Suitable arrangements have been made with the Department of Marine and Fisheries in connection with the establishment of a pickerel hatchery on land included in Marshy Point public shooting grounds, Manitoba.

EDUCATIONAL

Various camps attended by young people were visited and instruction given in bird protection and natural history subjects.

The total distribution of pamphlets amounted to 35,133. Publicity concerning the shooting season and other bird protection matters was obtained through the distribution of 40,073 posters, 9,011 copies of the Migratory Birds Convention Act, and 15,850 abstracts of the regulations under it. Circular letters regarding the changes in the regulations for the season 1928 were distributed to the press throughout Canada. Circular letters were also distributed to all cold storage warehouses in Canada advising them that legally killed migratory birds could only be kept in storage for a certain period after the close of the open season.

The Chief Migratory Bird Officer for the Western Provinces after a conference with the Director of Education for British Columbia prepared a paper entitled "Teachers Guide to Bird Study in British Columbia", which is to be circulated through the schools. Numerous lectures on bird protection were given by members of the permanent staff in both Western and Eastern Canada. The latter series included a special tour of New Brunswick, Nova Scotia and Prince Edward Island, during which much public interest in bird protection was aroused.

The lantern slide library contains slides covering 981 subjects, and showing 340 different species of birds. The demand for these was greater than ever before and in all, 3,769 slides were sent out, free of charge.

Several items of interest to explorers and others in the Far North were prepared for broadcasting by this office and several talks on bird protection were given over the radio.

Special measures were continued to protect trumpeter swans in British Columbia. Christmas bird censuses were made at many points by members of the various naturalists' clubs and officers of this branch. At Ottawa 19 species were found. Bird censuses taken from year to year give a comparative idea of the distribution of bird life at a time when it is at its lowest ebb. Some specimens of swans and other birds found dead at Kingsville, Ontario, were transferred to the Health of Animals Branch, Department of Agriculture, Ottawa, for post-mortem examination. The results showed that a few of these birds had died from an intestinal infestation with a liver fluke. Satisfactory progress has been made in the study of the food of marine birds with special relation to the spawning of herring.

Much interest has been shown in the building of bird houses, and bird-house competitions have been held under various auspices throughout Canada.

Advisory Board on Wild Life Protection.—During the year the Board held five meetings and many important items were discussed. Mr. J. B. Harkin was appointed Chairman of the Board, and four new members were added, viz., W. W. Cory, C.M.G., Deputy Minister of the Interior; Mr. Hoyes Lloyd, Supervisor of Wild Life Protection; Mr. T. R. L. MacInnes, of the Department of Indian Affairs; and Mr P. A. Taverner, Ornithologist of the National Museum of Canada.

Dominion and Provincial Game Protective Associations.—A development, which will undoubtedly prove of value in conserving the wild life of Canada, is the activity which has occurred recently in the organization of provincial game protective associations and in the discussion of the formation of a Dominion association.

Historic Sites and Monuments

Good progress was made during the year in connection with the acquisition, preservation and marking of historic sites of national importance, and the commemoration of the public services of outstanding personages in Canadian history.

As in former years the executive work was carried out by the National Parks of Canada Branch in accordance with the recommendations and advice of the Historic Sites and Monuments Board of Canada. This Board, which is an honorary body comprised of recognized authorities on Canadian history, held its regular meeting in Ottawa in May. The present personnel of the Board is as follows: Chairman, Brig.-General E. A. Cruikshank, LL.D., F.R.S.C., F.R. Hist. S., Ottawa, Ont.; His Honour F. W. Howay, LL.B., F.R.S.C., New Westminster, B.C.; James H. Coyne, M.A., LL.D., F.R.S.C., St. Thomas, Ont.; J. Clarence Webster, M.D., D.Sc., LL.D., F.R.S.C., Shediac, N.B.; His Honour W. Crowe, LL.B., K.C., Sydney, N.S.; Hon. P. Demers, LL.D., Montreal, P.Q.; Mr. J. B. Harkin, Commissioner, National Parks of Canada, Ottawa, Ont.; Secretary, Major A. A. Pinard, National Parks of Canada, Ottawa, Ont.

Since the inception of this work in 1919, the Board has reviewed the status of over 800 sites. From among these 221 have been selected to date as worthy of national commemoration. Control of 154 of these has been acquired by the National Parks Branch, and 129 memorials have already been erected. The interest and co-operation of provincial and local historical organizations in carrying out this work has in many instances been of great assistance and is gratefully acknowledged. The increase in the number of inquiries received with regard to these sites, as well as in the number of visitors to the sites themselves, point to a gratifying growth of interest on the part of the general public.

SITES MARKED

The following sites were commemorated during 1928:—

Canso, N.S.—A cairn with tablet was erected on a site provided by the town in the public school grounds to commemorate the events associated with the early history of Canso, which was developed as an important fishing station by the French in the 16th century. The British fortified it in 1720 and it was later the scene of several combats between them and the French and Indians.

First Post Office in British North America, Halifax, N.S.—With the consent of the Department of Public Works, a bronze tablet was affixed to the outer wall at the right hand entrance to the Post Office building, at Halifax, to record the fact that the first post office in the Dominion of Canada as now constituted was established in that city, in 1755.

King's College, Windsor, N.S.—With the consent of the University authorities, a tablet was attached to the outer wall of the Hensley Memorial Chapter building on the King's College University grounds at Windsor, to commemorate the founding of that college, in 1789, by the Right Reverend Charles Inglis, D.D., first bishop of Nova Scotia, and other United Empire Loyalists. The college was granted a Royal Charter in 1802, and is the oldest university in the King's overseas dominions.

Samuel Vetch, Annapolis Royal, N.S.—A cut-stone memorial, to which is affixed a tablet, was erected in the Fort Anne park, Annapolis Royal, to commemorate the public services of Samuel Vetch, Adjutant-General of the force which captured Port Royal, capital of Acadia, in 1710. Vetch was the first Governor and Commander-in-Chief of Acadia and continued in this position until after the Peace of Utrecht in 1713.

First Steam Fog Horn, St. John, N.B.—With the consent of the Department of Public Works a bronze tablet was affixed to the outer wall of the Customs building in St. John, to commemorate the invention and construction by Robert Foulis, in 1854 of the first steam fog alarm in the world.

First Marine Compound Engine, St. John, N.B.—By permission of the Public Works Department, a tablet was affixed to the outer wall, at the entrance to the Customs building in St. John, to commemorate the invention of the first marine compound steam engine. This was designed by Benjamin Tibbits, a native of Queens county, New Brunswick, and installed in 1842 on the steamer *Reindeer* for service on the Saint John river. The engine was in use for more than fifty years.

Ile-aux-Coudres, Que.—A white granite cross, with a tablet affixed thereto, was erected on a plot of land donated by Messrs. Elie and Joseph Dufour, on Ile-aux-Coudres, in the St. Lawrence river opposite Baie St. Paul, to mark the site where Jacques Cartier landed on September 6, 1535. Cartier erected a cross, explored the island and gave it its name. He departed the following day after hearing mass.

First Steamship in Canada, Montreal, Que.—With the approval of the Molson Brewery Company a tablet was placed on the outer wall of their main office building on Notre Dame street east, to commemorate the first Canadian steamship, the *Accommodation*, and events in which it played a part, which was built in Montreal, in 1809, by the Honourable John Molson. During the war of 1812-14, the ship rendered notable service on the St. Lawrence river between Montreal and Quebec.

Battle of Two Mountains, near Senneville, Que.—A cairn with tablet was erected on a small plot of land, donated by Mr. and Mrs. Waldo W. Skinner, adjacent to the Gouin boulevard near Senneville, to commemorate the events associated with the engagement which took place in 1689, on the lake of Two Mountains, when a band of Iroquois was defeated by the French, thus saving the island of Montreal.

Battle of Chateauguay Ford, near Allan's Corners, Que.—A cairn with tablet was erected on a small plot of land, donated by Mr. James Kerr, adjacent to the de Salaberry highway, between Allan's Corners and Howick, to commemorate the events associated with the engagement which took place there on October 26, 1813, between troops, detailed for the defence of the ford, and an invading United States force, much superior in numbers. The defeat of the latter was an important factor in saving the island of Montreal.

Bishop John Strachan, Cornwall, Ont.—By permission of the Board of Governors, a tablet was affixed to the outer wall of the Cornwall Collegiate Institute building to commemorate the distinguished public services of the Honourable and Right Reverend John Strachan, 1778-1867, a patriotic citizen, pioneer educator, author, and legislator. The famous Strachan grammar school was opened in Cornwall in 1802 on the site of the present Institute.

Montgomery's Tavern, Toronto, Ont.—A tablet was placed on the outer wall of Postal Station "K," North Yonge street, Toronto, with the consent of the Department of Public Works, to mark the site of Montgomery's

Tavern, original headquarters of William Lyon Mackenzie, leader in the rebellion in Upper Canada in 1837. On December 7 a brief skirmish took place here resulting in the defeat of the insurgents by the loyal militia. The uprising was an important factor in bringing about the union of Upper and Lower Canada, in 1841, and the permanent establishment of responsible government in Canada.

Battle of York, Toronto, Ont.—A tablet was affixed to a pedestal at the entrance to the Province of Ontario building in the Exhibition park, Toronto, to commemorate the events associated with the engagement which took place on April 27, 1813, between the Canadian Militia and invading United States troops near the spot.

Navy Island Shipyard, near Chippawa, Ont.—A tablet was placed on a pedestal erected by the Queen Victoria Niagara Falls Park Commission, adjacent to the park boulevard near Chippawa, to indicate the site of Navy Island shipyard where the first ships of war which navigated the upper lakes under the British flag were built in 1763-64.

Vrooman's Battery, near Queenston, Ont.—A tablet was placed on a pedestal erected by the Queen Victoria Niagara Falls Park Commission, adjacent to the park boulevard near Queenston, to mark the site of the battery engaged in the battle of Queenston Heights, 13th October, 1812, between Canadian and United States troops.

Fugitive Slave Movement, Windsor, Ont.—A tablet was affixed to a pillar of the Dominion Bank building on Ouellette avenue, to commemorate the events associated with the fugitive slave movement to Canada. Before the United States Civil War of 1861-65, Windsor was an important terminal of the "underground railroad." Escaping from bondage thousands of slaves from the south, landing there, found in Canada, friends, freedom, and protection.

Fort St. Joseph, St. Joseph's Island, near Sault Ste. Marie, Ont.—A tablet was attached to the chimney, all that now remains of Fort St. Joseph, the most westerly military post in Upper Canada, built in 1796-99 and garrisoned until 1812. The fort was a noted trading post and resort for the Indians, and from there was launched the attack in 1812 which resulted in the capture of Fort Mackinac by the British.

Indian Treaty No. 1, Lower Fort Garry, Man.—By permission of the Hudson's Bay Company, a tablet was affixed to the outer stone wall of Lower Fort Garry, near the south gateway, to commemorate the events associated with the signing of Indian Treaty Number 1, on August 3, 1871, between the Crown and the Swampy Cree and Chippawa Indians, whereby those tribes surrendered all their possessory rights to the lands comprised within the then existing boundaries of Manitoba.

Fort La Reine, Portage la Prairie.—Man.—With the consent of the civic authorities a cairn with two tablets was erected near the city pumping station to mark the site of the fort built by la Verendrye, the French-Canadian explorer and discoverer, in 1738. This post became his headquarters and from it he, or his sons, carried on explorations northward to the Saskatchewan river, southwest to the Mandan country, and to the foot-hills of the Rocky mountains.

First Coal Mine in Alberta, Lethbridge, Alta.—A cairn with tablet was erected in Galt gardens, with the approval of the civic authorities, to commemorate the events associated with the first discovery of coal in the province of Alberta. The mine was opened on the west bank of the Oldman river by Nicholas Sheran, in 1872. He broke his own trails, found his own markets and hauled coal by ox-team to Fort Benton, Montana, U.S.A., and other distant points. This vital industry has contributed greatly to the development of Western Canada.

Barkerville, B.C.—A cairn with tablet was erected on the side of the Provincial highway, just outside the town, to mark one terminus of the Yale-Cariboo wagon road, completed in 1865. Barkerville was the centre of the old Cariboo region whose gold fields, discovered in 1861, added many millions to the wealth of the world.

Sir George Simpson, Kootenay National Park, B.C.—A cairn with tablet was erected adjacent to the Banff-Windermere highway at the junction of the Simpson and Vermilion rivers, fifty miles west of Banff, to commemorate the public services of Sir George Simpson, Governor of the Hudson's Bay Company territories, 1821-1860, under whose guidance the Far West, the Far North and the Arctic coast of Canada were explored, peace with the natives was maintained, trade developed, and British rule strengthened. He, during his journey round the world in 1831-42, was the first white man to cross the Rocky mountains, through this divide which has ever since been known as the Simpson pass.



Tablet marking the site of Fort Jemseg, N.B.

PRESERVATION WORK

Preservation and other work was carried out at several of the larger sites as follows:—

Fort Cumberland (Beauséjour), N.B.—The entire property was fenced, a new entrance, parking area and rest pavilion provided, footpaths laid out. A number of markers were placed designating points of interest, and the lines occupied by Monckton's attacking army, 1755, were cleared of bushes.

Fort Chambly, Chambly, Que.—The stonework of the outer walls of the fort was thoroughly repaired and capped with a cement coping; a protection wall placed around the bastions facing the river, repairs made to the observation tower on the west wall and a monument erected in the old cemetery.

Fort Lennox, Ile-aux-Noix, Que.—Stone arches of the arcade of the guard-house, which had fallen out of line, were restored. The upper walls were strengthened. The outside walls and the piers supporting the arches were thoroughly grouted and repointed. Repairs were also made to the roof, chimneys, and ceilings of the barracks, as well as to the masonry at the north and south main entrances.

Fort Wellington, Prescott, Ont.—Extensive improvements were made to the caretaker's quarters and museum and the work of repairing the inner palisades was practically completed. A water supply system was also installed.

Martello Shoal Tower, Kingston, Ont.—The wooden roof was removed from the tower so as to make it conform to its original design. Repairs were carried out on the masonry work and also to the small landing wharf and entrance.

ACQUISITION OF SITES

Control of the following sites, recommended by the Board for future marking, was also obtained:—

Louisbourg, N.S.—The major portion of the lands included in the original site were purchased from the owners.

Fort La Have, La Have, N.S.—The Department of Marine and Fisheries granted permission to erect a memorial on the lighthouse reserve at La Have to mark the site of the fort built by de Razilly in 1632.

Fort Jemseg, Lower Jemseg, N.B.—Mr. F. C. Nevers of Lower Jemseg donated a plot of land adjacent to the public highway, on which to erect a memorial to mark the site of Fort Jemseg, built in 1659, during the British possession of Acadia.

First Railway in Canada, St. Johns, Que.—Permission was obtained from the Canadian National Railways to place a tablet on the outer wall of their station at St. Johns to mark one terminal of the first railroad in Canada.

Battle of 6th September, 1775, near St. Johns, Quebec.—The St. Johns Golf Club donated a plot of land adjacent to the Lacolle highway, on which to erect a memorial to commemorate the events associated with the engagement which took place on above date.

Chaudiere Portage, Hull, Que.—Permission was obtained from the Hull civic authorities for the erection of a memorial in the centre of Montcalm street, near the Ottawa river, to mark the site of the first portage around the Chaudiere falls.

Bishop Alexander Macdonell, St. Raphael, Ont.—Permission was obtained from the Roman Catholic Episcopal Corporation of the Diocese of Alexandria to place a memorial on a small plot of land in front of the parish church at St. Raphael West to commemorate the distinguished public services of Bishop Alexander Macdonell.

Battle of the Longwoods near Wardsville, Ont.—Mr. Roy Henderson donated a plot of land, immediately adjacent to the London-Chatham highway on which to erect a memorial to commemorate the events associated with the engagement which took place there on March 4, 1814, between Canadian and United States troops.

Wascana, Man.—Permission was obtained from the municipal authorities to place a memorial in a small park to commemorate the historic events associated with the early fur-trading posts which existed near the confluence of the Souris and Assiniboine rivers.

Indian Treaty No. 6, Fort Carlton, Sask.—Mr. W. P. Urton donated a plot of land adjacent to the main road leading from Prince Albert to Carlton Station on which to erect a memorial to commemorate the events associated with the signing of Indian Treaty No. 6, in August, 1876.

Point Grey, Vancouver, B.C.—Permission was obtained from the Provincial Government to place a memorial in the grounds of the University of British Columbia, to commemorate the events associated with the meeting of Captain George Vancouver and the Spanish explorers in June, 1792.

Pacific Cable, Bamfield, B.C.—Permission was obtained from the Pacific Cable Board to place a tablet on the Cable building at Bamfield to mark one terminal of the Pacific Cable which was completed in 1902.

APPENDIX

**Report of the Secretary of the Alpine Club of Canada,
Horse Thief Creek, 1928**

The twenty-third annual camp of the Alpine Club of Canada was held in the valley of Horsethief creek, a tributary of the Columbia, just below the Lake of the Hanging Glaciers, from July 17 to 31, 1928. While camp has been placed on more beautiful sites the neighbourhood was very interesting and unknown to almost every one. A subsidiary camp was pitched on the south fork of the creek which was an excellent base for climbing, though not suitable for a large camp.

The journey from rail was a somewhat lengthy one. Members drove from the club house at Banff by way of the Banff-Windermere road to a base camp pitched at the end of the driving road on Horsethief creek. There the night was spent and the next day the journey made into the main camp. A halfway camp was used by some members who found the walk over long.

It was the first camp in the history of the club which did not experience a single storm. The camp fires were interesting and were addressed by representatives from Japan, New Zealand, New South Wales, and Scotland.

After the members had dispersed the camp was occupied by the Trail Riders of the Canadian Rockies who appreciated the methods of the club.

The camp was well attended and every one seemed happy. One hundred and sixty-eight were placed under canvas: among them representatives of the Alpine Club, England; the Japanese, American, French, Swiss and German-Austrian Alpine clubs; The Scottish Mountaineering Club; The British Columbia Mountaineering Club; The Appalachian Mountain Club; The Mountaineers; and The Royal Geographical Society.

The principal mountains climbed were: Thompson, The Dome, Monica, Bruce, Maye, Camp peak, Dorothy, Commander and Farnham.

Those present were drawn from the following countries: Canada, England, Scotland, Australia, New Zealand, Japan, and the United States.

**Report of the Secretary of the Alpine Club of Canada,
Banff Club House, 1928**

The Alpine Club House at Banff had the most successful season in its history. The attendance was considerably augmented by members visiting the camp at Horsethief creek and making Banff their point of departure.

New cabins were built to replace the tent houses which had outlived their attractiveness. These cabins are exceedingly comfortable and also ornamental, harmonizing with the surroundings. The parking space was also enlarged and a sanitary building erected.

The club house remains a centre of information for all those interested in mountain matters. The usual climbs of the surrounding peaks were made, including two of mount Louis, the first time it had been climbed by ladies.

The outstanding mountaineering event of the season was the ascent of mount Waddington (Mystery mountain) in the coast range by Mr. and Mrs. Munday.

The attendance was 501, drawn from England, Scotland, Australia, New Zealand, the United States, Denmark, Italy, and Japan.



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DEPARTMENT OF THE INTERIOR, CANADA

HON. THOMAS G. MURPHY, Minister

H. H. ROWATT, Deputy Minister

NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

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Report of the Commissioner

YEAR ENDED MARCH 31

1929/1930



OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1931



Kicking Horse Canyon and River—Yoho National Park.

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NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

GENERAL

The year 1929-30 was one of activity and expansion in the work of the National Parks of Canada. Two new areas were investigated and added to the national parks system. The first of these included twenty-nine island reservations in the Georgian Bay district of Ontario. Some years ago officers of the National Parks Branch had pointed out the rapidity with which this beautiful region was being taken up by summer residents, with the result that there would soon be no places to which the general public could have free access for camping, bathing, or picnicking. An examination of unalienated islands, title to which still remained in the hands of the Department of Indian Affairs in trusteeship for the Ojibway tribe, was made by National Parks officers. Later by arrangement with the Department of Indian Affairs, a number of suitable islands were reserved, and last year twenty-nine were acquired and set aside as the Georgian Bay Islands park. Beausoleil island, the largest of the group—in fact the only remaining large island not taken up in the entire region—is well suited to become a public resort. It covers nearly five square miles and presents a good example of the characteristic scenery of this picturesque part of Ontario. Beautiful groves and bathing beaches of white sand make it attractive for outdoor recreation while its plant and bird life are varied and interesting.

Beausoleil island, too, played a part in that tragic drama which resulted in the annihilation of the great Huron Confederation at the hands of the Iroquois. After their crushing defeat at Fort Ste. Marie II, a few Hurons, Jesuit clergy, and French soldiers are said to have taken refuge from their persecutors on this island. Ruins of fireplaces and piles of debris which appear to indicate a line of fortifications laid out on military principles are still to be seen and lend support to the belief. Others believe that the ruins are of Ojibway origin, and date back to a period one hundred years later than the downfall of the Hurons when the Ojibways came down from the north and occupied the island. The word "Beausoleil" is a French translation of the Indian name "Chi-kon-de-kiara," meaning "land-seen-in-the-beautiful-light-of-distance," or more freely "land-of-the-beautiful-sun." This charming designation may have owed its origin to the wonderful sunrises and sunsets for which Georgian bay is famous.

Another new park region of interest is that recently set aside covering the Riding mountain in Manitoba. It consists of 1,148.04 square miles of rolling woodland country dotted with beautiful lakes, of which Clear lake, already a resort, is the best known. The new park extends somewhat over fifty miles from east to west, and from twelve to twenty-four miles from north to south. It lies southwest of lake Dauphin and approximately 120 miles north of the international boundary. The eastern portion is broken, hilly country, forming part of the well-known Riding Mountain escarpment. The terrain is cut by deep gorges and covered with dense poplar, spruce and jack-pine forests which will provide opportunities for forest research and nature study in addition to the recreational attractions. On the east and north the escarpment rises abruptly

from the plains. To the south and west the terrain extends in a wide plateau broken by rolling hills. The park is also a natural home for big game and contains one of the largest herds of wild elk on the continent. Moose, deer, bear, and smaller animals are found in numbers, while its ponds and lakes supply a resting and feeding place for thousands of wild birds. Surveys for the construction of a highway to Clear lake were undertaken last autumn and development work will be prosecuted as soon as the season opens.

TRAVEL TO THE PARKS

The present year marks the eighteenth since the creation of the National Parks Branch. In that time astonishing developments have taken place. The number of national parks has been increased from seven to eighteen and the total area from 4,019.5 square miles to over 12,000 square miles. In every part of the Dominion the importance of national parks is appreciated and there is apparent a growing pride in these great national possessions. This interest has been reflected in the rapid growth of travel to the parks, which are no longer regions visited by the wealthy few, but are attracting the multitude.

VISITORS TO NATIONAL PARKS

The number of visitors entering the national parks last year was the largest yet recorded. The total reached 559,329, as compared with 488,721 in the previous year. Totals by parks for the two years show decreases and increases as follows:—

Park	1929-30	1928-29
Banff.....	217,781	236,801
Buffalo.....	18,853	18,454
Elk Island.....	22,611	18,968
Fort Anne.....	18,000	16,000
Glacier.....	1,000	1,000
Jasper.....	15,458	14,000
Kootenay.....	51,772	33,238
Nemiskam.....	100	50
Point Pelee.....	83,200	50,100
Prince Albert.....	10,131	5,118
Revelstoke.....	8,000	8,800
St. Lawrence Islands.....	20,000	18,000
Vidal's Point.....	17,400	15,050
Waterton Lakes.....	48,592	26,002
Yoho.....	26,431	27,140
	559,329	488,721

Increase 70,608.

It will be noted that the largest increase occurred in the smaller parks, Waterton Lakes park showing a growth of nearly 90 per cent. Prince Albert park practically doubled the total of the previous year, while Kootenay park also showed a big increase. The business depression undoubtedly affected long-distance travel to Banff, particularly during the latter part of the summer, a decrease which was, however, partly made up by the increase in motor travel. The total number of cars using the Banff-Windermere and Kicking Horse highways was 98,482, an increase of 5,604 over the previous year. This increase is very gratifying and shows that these roads are fulfilling the purpose for which they were constructed—to act as through routes across the Rockies between the prairies and the coast, and as a means of bringing in foreign tourists to Canada.

REVISION OF PARK BOUNDARIES

The decision to transfer the natural resources to the western provinces led to a revision of the boundaries of the parks on the eastern slope of the Rockies. While the boundaries of these parks have been extended from time to time in the past, such extensions have always been considered as provisional. With the passing of all Crown lands, with the exception of national parks, to the provinces the desirability of fixing permanent boundaries became obvious.

During 1927 Mr. R. W. Cautley, D.L.S., was accordingly instructed by the minister to investigate the eastern areas of Banff and Jasper national parks and make recommendations for the guidance of the Government. Associated with Mr. Cautley was Mr. L. C. Charlesworth, Chairman of the Irrigation Council of Alberta, who was appointed the official representative of that province.



Government Island—Georgian Bay National Park.

The report submitted strongly recommended, for the facilitation of both forest and game protection, that heights of lands as opposed to streams should be taken as boundaries. It pointed out that the valleys form the natural routes of travel both for game and visitors and that to have a closed area on one side of a stream and an open one on the other would lead to confusion and annoyance as well as danger to park game. The exclusion of certain areas possessing natural resources was recommended, including the Kananaskis and Spray watershed areas, the Ghost River area, the Red River watershed, the northerly portion of Rocky Mountains park, and the Brulé and Rock Lake areas which are believed to contain extensive coal deposits. With the exclusion of the areas recommended in the report, Rocky Mountains, or Banff, national park will be reduced in area from 3,961.50 square miles to 2,585 square miles, and Jasper national park from 4,635 square miles to 4,200 square miles.

PRESERVATION OF WILD LIFE

It is now eighteen years since the national parks were made game sanctuaries, through the establishment of an adequate system of game patrols and enforcement of the regulations. The results attained have been most gratifying. Native species have re-established their numbers to such an extent that the parks are more and more becoming the wild life reservoirs of the country.

Restocking.—In the past two or three years provincial governments have been drawing on the parks to replenish depleted game areas in other parts of the country. Two regions in the southern part of British Columbia have been stocked with Rocky Mountain sheep and an additional area between the Okanagan and Kettle valleys with elk. During the past year the British Columbia Government took up with the Department of the Interior the question of restocking the Queen Charlotte islands with elk. Authority was granted to furnish them with a small herd from the Buffalo park at Wainwright. The animals were cut out of the main herd—which now numbers 600—early in the spring, corralled until safe to handle, and then placed in specially constructed crates. Through the co-operation of the Canadian National Railways a special baggage car was provided which was attached to the regular passenger train for Prince Rupert and went through express to that port. Here the elk were transferred to a boat sailing to the Queen Charlotte islands. No loss or injury was sustained in transit and according to report the animals are settling down and adapting themselves successfully to their new surroundings.

Scientific and Educational Shipments.—Shipments for scientific and educational purposes were also made to various parts of the world. Two female buffalo were shipped to the Zoological Gardens of the city of Johannesburg, South Africa, and arrived in good condition after their long journey. A pair of beaver and a buffalo cow were presented to the Royal Zoological Society of Antwerp, Belgium. One male and two female buffalo were forwarded to the Zoological Society of the city of Adelaide, Australia; two male buffalo and a pair of beaver to the Zoological Gardens at Auckland, New Zealand; and a pair of Rocky Mountain sheep to the Zoological Gardens, London, England. The Division of Animal Husbandry, United States Department of Agriculture, at Matanuska, Alaska, applied for one male and three female yak for experimental purposes in connection with the experimental farm there, and these animals were shipped in the autumn. A Rocky Mountain ram was presented to the Edmonton Exhibition Association, and one pair of sheep and a male elk to the city park authorities of Fort William, Ont. Two female buffalo and a pair of elk from Buffalo park were also donated to Stanley park, Vancouver, B.C. The male elk died shortly after arrival and an additional male was accordingly sent. A pair of Rocky Mountain goat was forwarded to the Zoological Gardens, Victoria, B.C. The corraling and shipping of such large wild animals, as most of the above, involves a good many difficulties, but it is gratifying to know that nearly all the animals reached their destination in good condition and are reported to be doing well.

Government Buffalo Herds.—The Government buffalo herds are in a very thriving condition. Nearly all problems in connection with their maintenance have been successfully met; the chief difficulty now is to keep their numbers within the forage limits of the reserve. The rapidity of increase is shown by the fact that if no disposal had been made of surplus animals since the original purchase in 1909, the herd through natural increase alone, would now total about 20,000 head. The calf crop at Buffalo park last year numbered about 1,200, with an approximately equal number of males and females.

The wisdom of the department's action in reducing the numbers in Buffalo park and of increasing the range at Elk Island park was particularly evident

last year. The season proved to be very dry and the forage consequently scanty and poor, yet, owing to the fact that there was no overcrowding, the herds reached the autumn in good condition. Except for a severe spell in December, the winter was favourable, with moderate temperatures and snowfall and the animals came through well. A census taken in March showed 5,016 buffalo in Buffalo park and 716 in Elk Island park. No new shipments were made to the Far North during the year. In the autumn, with a view to keeping the herd in Buffalo park near the 5,000 total, a slaughter of 500 animals was decided upon. This was carried out early in December when the fur was prime. Owing largely to the educational and publicity efforts carried on by the department there now exists a ready market for buffalo products and no difficulty was found in disposing of the meat and hides, both at an advanced price compared with the previous year. Investigations were made with a view to improving forage conditions in Buffalo park and, at the request of the parks authorities, an official of the federal Department of Agriculture spent some time at Buffalo park, examining soil conditions and the present herbage. Steps are being taken to put the recommendations contained in his report into effect.



Aubrey Island—St. Lawrence Islands National Park.

Antelope Herd.—The antelope herd at Nemiskam park is thriving. Climatic conditions during the past year were very favourable, particularly the mild winter with its light snowfall. There was an abundance of grass in the park, the antelope came through the cold season in good condition with no loss, and the natural increase in the spring was very satisfactory. The herd in Nemiskam park now totals 300. The chief enemy of the antelope is the coyote but, as in other parks, this pest was less troublesome this year, apparently owing to some epidemic which decreased the number. In co-operation with the Department of Agriculture an investigation was made with a view to determining the importance of sage brush in the feed of antelope and of discovering methods of increasing the growth of the plant in Nemiskam park.

Beaver.--Questionnaires were sent out to the game warden staffs in Banff, Jasper, Waterton Lakes, and Elk Island national parks, to obtain a census of the present number of beaver in each park; also suggestions as to their control where desirable and propagation in selected areas. Beaver had increased to such an extent in Cabin lake, Jasper park, that they were causing trouble with the water supply system there. The superintendent was authorized to trap a number of these alive and to place them in other waters of the park. Beaver were also found to be damaging the fish hatchery at Waterton Lakes park and authority was given the superintendent there to capture twenty-five animals alive for transfer elsewhere in the park.

FIRE PROTECTION

Owing to the extreme dryness of the season a number of fires occurred in the parks. The vigilance of the wardens, however, and the use of up-to-date fire-fighting equipment reduced the fire damage to the minimum. There are now in the parks 150 portable pumps with 200,000 feet of 1½-inch hose; several self-propelled pumpers with hose trucks similar to those used in cities, for use on highways; trailer pumpers of 20 horse-power; and automobile front-end pumps. Each year the equipment is being added to and the manner in which fires are now brought under control shows the efficiency of the provision made to safeguard the great park areas from fire.

The numbers of fires, the areas burned over, and the cost of extinguishing is shown by the following tables:—

RAILWAY FIRES DURING 1929-30

Park	Number of fires	Area burned	Cost of extinguishing	
		acres	\$	cts.
Jasper.....	3	9½	176	62
Banff.....	12	10¾	139	76
Yoho.....	6	4¾	25	01
Totals.....	21	25	341	39

GENERAL FIRES DURING 1929-30

Jasper.....	16	42½	450	95
Banff.....	33	3,476½	17,297	68
Yoho.....	3	1,500¼	3,218	46
Glacier.....	2	5	246	80
Buffalo.....	1	2¼	10	00
Elk Island.....	3	1¾	2	50
Kootenay.....	9	100	1,796	13
Mount Revelstoke.....	5	116	1,932	37
Point Pelee.....	2	4½	.....	.....
Prince Albert.....	6	10,650¼	1,489	70
Waterton Lakes.....	6	.....	67	75
Totals.....	86	15,898¾	26,512	34
Grand totals all fires.....	107	15,923¾	26,853	73

THE BIG BEND HIGHWAY

Following negotiations between the federal Government and the Government of British Columbia, arrangements were made for the construction

of the Big Bend highway which will connect Revelstoke with Golden and form the last link in the western section of a trans-Canada motor route. The road, which is now under construction, when completed, will provide a direct way through all-Canadian territory from Winnipeg to Vancouver and furnish an artery of communication which from a tourist point of view should prove of inestimable economic value to the country. Two years ago the Dominion Government constructed a link in the highway from Lake Louise in Banff national park through the Kicking Horse pass via Yoho park to connect with the provincial road through the Kicking Horse canyon from Golden, B.C. About the same time the province of British Columbia completed the scenic highway up the Fraser valley and as far as Revelstoke, B.C. There remained only the barrier of the Selkirk range to be surmounted, but this involved many engineering difficulties. Under the agreement made by the Government of Canada with the province of British Columbia the eastern section of the Big Bend highway from Donald to Boat Encampment at the head of the Big Bend will be constructed by the Dominion, while the western section from Boat Encampment to Revelstoke will be built by the province of British Columbia.

The Big Bend route will afford a spectacular scenic motor trip. The highway from Calgary to Vancouver, will pass through mountain scenery of unsurpassed grandeur and sublimity. Lofty mountains, deep luxuriant valleys, snowfields and glaciers with many charms truly alpine in character, will be unfolded to the tourist. By the completion of this link the people of the Prairie Provinces will have ready access to the sea-level climate of the coast, while Banff and the beautiful Lake Louise district will be brought within easy reach of the people of the Pacific coast.

Over 500 miles of motor highways, more than 2,000 miles of trail and nearly 900 miles of telephone lines were under maintenance last year. The mileage by parks is as follows:—

Park	Roads	Number of miles	
		Trails	Telephone lines
Banff.....	145	769·0	235·25
Jasper.....	108	647·50	308·25
Yoho.....	55	168·25	44·25
Glacier.....	9	121·0	7·0
Waterton Lakes.....	34	225·25	57·37
Kootenay.....	71	115·50	64·00
Mount Revelstoke.....	19	34·25	17·25
Buffalo.....	11	.....	34·50
Prince Albert.....	34	7·0	89·0
Elk Island.....	15	.....	.....
Point Pelee.....	7	.....	.....
	508	2,087·75	856·87

LANDSCAPE AND ARCHITECTURAL WORK

The plans of a large number of buildings proposed to be erected in the various national parks were examined and in the majority of cases drawings showing suggested revisions to elevations were prepared with a view to improving the external appearance without adding to the cost of buildings. These included designs for residences, stores, hotels, theatres, banks, churches, hospital, service stations, masonic lodge, tea rooms, public garages, and other structures.

Working and detail drawings and specifications were prepared for the following new Government-owned buildings.

Gateway building, eastern entrance to Banff park.
 Milk vendor's store at Tunnel Mountain auto campsite, Banff park.
 Addition to dressing room accommodation at Cave and Basin swimming pool, Banff park.
 Residence for superintendent, Kootenay park.
 Stores and garage building, Yoho park.
 Residence for superintendent, Yoho park.
 Gasolene and oil storage building, Yoho park.
 Addition to Government garage, Waterton Lakes park.
 Addition to Administration building, Waterton Lakes park.
 Administration building, Prince Albert park.
 Caretaker's office, auto camp grounds, Prince Albert park.
 New Royal Canadian Mounted Police quarters, Prince Albert park.
 Alterations to foreman's cottage, Buffalo park.
 Refreshment pavilion, Point Pelee park.
 Pavilion, Beau Rivage island, St. Lawrence Islands park.
 Plan of War Memorial park at Mattawa, Ont.

A number of plans for new subdivisions and automobile camp grounds in Prince Albert park, where new roads are opening up attractive building areas, were prepared, also plans of proposed zoning areas in the townsite of Banff. Designs were drawn as well in furtherance of landscape development at the Great Divide near Stephen, B.C.

PUBLICITY

The Publicity Division was very active during the year. A systematic course of lectures illustrated by moving pictures and coloured lantern slides was given in Canada and the United States. Attractive publications were issued, moving pictures loaned, and articles and memoranda furnished to writers, magazines, and newspapers. The number of lectures delivered during the year was 140. Moving pictures shown outside the office, 718; within the office, 1,788; loaned, 355. The photographic library was increased by several hundred negatives; 23,975 new prints were added to the collection; and 16,481 distributed. Enlarged pictures sent out numbered 1,162; coloured slides added to the collection, 3,456; loaned, 4,710. Eighty-five lectures were prepared and provided for outside lecturers and 437 articles with 291 cuts furnished papers and magazines. Framed pictures used for exhibition purposes numbered 340.

To meet the increasing demand for publications, 344,380 pamphlets (new editions and reprints) were printed. These included:—

First editions—*Jasper*, 10,000; *Banff, Kootenay and Yoho Parks*, 25,400; *Guide to Waterton Lakes Park*, 25,000; *Elk Island Park*, 25,000; *Geological Story of Jasper National Park*, 10,000; *Guide to Fort Wellington*, 10,000; *The Succession of Fossil Faunas in the Eastern Part of Jasper Park*, 1,000; *Sedimentation in a Glacial Lake*, 1,000.

Reprints—*Banff, Kootenay and Yoho Parks*, 51,250; *Rocky Mountains Circle Tour*, 50,000; *Waterton Lakes Park*, 35,815; *The Kicking Horse Trail*, 25,100; *Kootenay National Park and the Banff-Windermere Highway*, 25,300; *Guide to Fort Anne*, 25,450; *Through the Heart of the Rockies and Selkirk*, 10,065; *Prince Albert National Park*, 10,000; *Tourists' Guide of Canada—1929*, 1,000.

During the year 209,095 pamphlets were distributed, besides 2,500 copies of the Annual Report of the Commissioner of National Parks, 1927-28.

REVENUE

Revenue collected by the National Parks of Canada during the fiscal year ended March 31, 1930, amounted to \$251,007.78. The following statement shows the revenue by parks:—

	1929-30	1928-29
	\$ cts.	\$ cts.
Banff National Park.....	148,851 63	150,963 10
Buffalo Park.....	26,430 39	23,561 61
Elk Island Park.....	9,343 50	5,993 15
Glacier Park.....	142 23	166 14
Jasper Park.....	35,252 72	29,994 39
Kootenay Park.....	14,431 51	13,729 64
Nemiskam Park.....	384 00	384 00
Point Pelee Park.....	401 75	607 37
Prince Albert Park.....	594 73	379 77
Vidal's Point Park.....	171 00	72 00
Waterton Lakes Park.....	6,926 42	5,622 08
Yoho Park.....	3,760 00	3,223 17
Fort Anne Historic Park.....	1 00	6 00
Brereton Lake Recreational Area.....	10 00	10 00
Hawke Lake Recreational Area.....	10 00	
Lake Florence Recreational Area.....	66 00	60 00
Fines and forfeitures.....	2,876 59	2,590 93
Historic sites.....	30 00	32 00
Migratory Birds.....	70 15	74 00
Miscellaneous.....	1,254 16	1 00
	251,007 78	237,470 35

Detailed reports of the work in the different parks are found hereunder.

SCENIC PARKS

BANFF NATIONAL PARK

Reports show that Banff national park had a very successful year. Tourist travel by motor assumed greater proportions than ever before. The total number of cars, east-bound and west-bound, through the Kananaskis gateway was 74,246, an increase of 6,410 cars over the previous year's figures. Passengers numbered 142,337, or 21,439 more than in 1928. Of the grand total of visitors by motor 135,577 were from Canada and 6,760 from the United States.

Tunnel Mountain motor campsite showed increasing popularity. During the season 7,309 cars and 26,861 persons were accommodated on the grounds, establishing a record. Of the campers 24,139 were from Canada and 2,722 from the United States. The record for a single day was made on June 30, 1929, when 768 cars and 3,141 persons were in camp, as compared with 685 cars and 2,940 motorists on July 15, 1928.

As usual the Government hot springs proved popular with bathers. At the Cave and Basin bathing house registrations showed 66,305. New daily and week-end records were established. On July 1, 2,295 bathers passed through the turnstile, and during the week-end June 29-July 1, 4,731 bathers were accommodated. The number of visitors to the Cave adjacent to the hot springs was 61,010. At the Upper hot springs there were 46,146 registrations.

Museum, Zoo, and Animal Paddocks.—An outstanding place of interest to visitors is the Banff museum. During the year over 20,000 people viewed the collections of big game and smaller animals; bird, fish, and plant life of the region; geological specimens and Indian relics. The Banff zoo was again the centre of interest for thousands of tourists. The animals and birds now being

cared for at the zoo include: 1 polar bear, 2 grizzly bears, 1 black bear, 1 cinnamon bear, 1 mountain lion, 1 Canada lynx, 1 bobcat, 4 timber wolves, 4 coyotes, 1 badger, 2 martens, 1 gopher, 3 porcupines, 1 ermine, 2 great horned owls, 1 peacock, 2 golden eagles, and 4 Canada geese. The exhibition herds of animals at the paddocks were in splendid condition. These comprised 22 buffalo, 25 elk, 7 Angora goats, 10 Rocky Mountain sheep, 9 four-horned sheep, 7 Rocky Mountain goats and 5 yak.



Lake Louise—Banff National Park.

Permits and Licences.—Permits and licences covering the various business activities carried on in the park totalled 20,560. Of these 18,203 were motor licences for transients. Motor licences for park residents numbered 625; guides' licences, 58; chauffeurs' licences, 515; restaurant and tea room licences, 41.

Banff Fire Protection.—There were few fires during the tourist season, and what outbreaks occurred were quickly brought under control and caused no serious damage. During the year the Banff volunteer fire brigade responded to nineteen alarms. The total loss amounted to \$723. The brigade now numbers 25, officers and firemen. A night patrol was maintained in the townsite by the local detachment of the Royal Canadian Mounted Police.

Mosquito Control.—The campaign against mosquitoes in the park has shown gratifying results. After a thorough investigation of conditions some years ago, officers of the Department of Agriculture found that the most important species of mosquito to combat in the neighbourhood of Banff was the *aedes*, members of which breed in flooded areas. When hatched out the adults may travel as far as four or five miles. Experiments have shown that the eggs retain their fertility as long as six years. During the larva and pupa stages the insects must breathe through the surface of the water and a thin film of oil will cause their death from suffocation in a maximum time of four hours. During May,

June, and July of 1929, ten men were employed in the distribution of oil over the areas affected. A total of 2,565 gallons of oil was used on an area of 4,500 acres. Satisfaction was expressed by the officials in charge of the work that the fish *Gambusia affinis*, an enemy of the mosquito, which had been deposited some years ago in the pool above the Cave and Basin, had been prolific in their increase.

Roads.—The roads in and about Banff and throughout the park were maintained in excellent condition during the season.

Trails.—A new trail was constructed from Castle Mountain bungalow camp to Taylor lake, a distance of three miles.

Cabins.—A new cabin (No. 2 type) was constructed at each of the following points: On Bow Lakes trail, 10 miles from Lake Louise; at Bow pass; at Waterfowl lakes; on the Saskatchewan river near the mouth of Howse river. A storehouse was also erected near the mouth of Howse river.

Forest Telephone Lines.—New telephone lines were constructed from a point seven miles up the Spray river to Seventeen-mile camp, and from Lake Louise to Bow pass.

Public Health.—Little sickness was reported in Banff during the past year. Sanitary measures relating to the collection of garbage were strictly observed. Samples of milk and water were periodically submitted for analysis to the University of Alberta, Edmonton, and the returns in every case proved satisfactory. During the period from October 31 to November 5, the annual test of the dairy herds was made by Dominion Government inspectors and all the animals found to be free from tuberculosis.

Sports.—Banff is becoming more and more a centre for athletic events of all kinds. During the summer mountain-climbing, boating, swimming, and golf drew thousands to the park. The annual Indian Days' pageant and sports were carried out on July 23, 24, and 25, and were largely attended.

During Christmas week the Mount Norquay Ski Club started its activities, which subsequently gave much enjoyment to the members and winter tourists.

The winter carnival held under the auspices of the Banff Winter Sports Association was most successful. From February 1 to 8 great crowds attended the sports. There were racing, swimming and diving events, hockey matches, sleighing, ski-ing, toboggan races, dog races, ladies' hockey matches, trap shooting, ski-joring, and carnival dances. The last day was mainly devoted to a curling bonspiel and other ice events.

JASPER NATIONAL PARK

Jasper park is rapidly increasing in popularity. Last season the total number of visitors was 15,458, as compared with 14,000 the previous year. A large number of the visitors were accommodated at Jasper Park Lodge, which has been enlarged to care for 600 guests. The golf links were greatly improved by the removal of boulders from the fairways, the addition and adjustment of bunkers, and extensive fertilization. In August the Canadian Amateur Golf tournament took place, and early in September was held the usual Jasper Park Lodge Totem Pole tournament.

During the season many improvements were made in Jasper townsite to meet the needs of a rapidly growing population. A considerable amount of new sidewalk construction was completed, the electric and water services extended, and the work of installing the sewerage system continued.

New Buildings.—Building operations in Jasper included 15 residences, 1 new hospital, 1 store and a number of garages and small buildings. In addi-

tion the Canadian National Railways took out permits for extensions, including 1 golfers' sleeping quarters, 1 sixteen-room cottage, 2 ten-room cottages, 1 two-suite cabin, 2 sixteen-room cabins, 1 nurses' building, 1 four-suite cabin, 1 garage, altering 6 cabins, and extending steam lines, water lines, electric light and telephone services. The estimated cost of all above extensions and improvements undertaken was \$441,845.

Roads and Bridges.—The portion of the Maligne highway from the railway crossing to Jasper Park Lodge, which had been surfaced with McMurray tar sands, stood up well under the traffic, and was maintained in excellent condition. The rest of the road was gravelled where necessary.



Mount Robson and Berg Lake—Jasper National Park.

At the new Miette River bridge the approaches were filled with 2,262 cubic yards of material and strengthened at the highest points by strong log cribs. On the Edith Cavell highway a considerable amount of widening was done on the upper sections. The road was in good condition during the season and only a small amount of gravelling was required. The tote road from the Astoria bridge on the highway to the Whirlpool River bridge, eight miles in length, was completed. Along the river flats where boulders protruded, a covering of heavy silt was laid, which packed down and made a smooth running surface. On the Medicine Lake tote road culverts were put in at low points and considerable gravelling done. This road is being used increasingly each year by cars from Jasper in connection with trips to the wonderful Maligne Lake district.

The Rocky River trail was continued from mile 18 $\frac{1}{4}$ to mile 36. Standard construction was maintained, making a good path for the pack train. When completed this trail will join the standard trail at Southesk river and the Forestry trail. There are now 379 miles of standard trails in Jasper park and

268 miles of "pack" or second-class trails. Fifteen miles of new telephone line were constructed during the year from Jacques lake to and up Rocky river. Forest telephone lines within the park now total 308 miles. New buildings included a warden's cabin of improved design at the forks of Rocky river.

Sanitation.—The drainage system was extended and new sewers installed and the usual routine of garbage collection and other sanitary measures continued.

Horses.—There are now ninety draft, saddle, and pack horses in the Government service in Jasper park.

Fires.—During the season there were three railway fires, two of which were caused by sparks from locomotives. The areas burnt over total nine and one-half acres and the cost of extinguishing was \$176.62. There were also sixteen fires of a general nature in the park which were extinguished at a cost of \$450, and one town fire which caused a loss of \$300.

Wild Life.—There has been a noticeable increase in all species of wild life in Jasper park. Grazing and food conditions generally were everywhere good and the animals appear well nourished and healthy.

Elk are becoming quite numerous and are finding new feeding grounds all over the park. The largest herds range between Pyramid mountain and Cabin creek, and many frequent the Athabaska and Miette valleys. The number of elk in the park is placed between 3,000 and 4,000.

There was a large increase in Rocky Mountain sheep during the year. All the old ranges, including Pocahontas, Interlaken, Brazeau, Snake Indian river, Moose Horn creek, Southesk river, and the northern boundary of the park, were well stocked. The sheep are now spreading wherever they can find suitable ranges. A large flock has been seen regularly at Cavell bridge on the motor highway, and has been a great attraction to tourists. A fine herd may also be seen daily on the Maligne range. It is estimated that there are now 20,000 sheep in the park.

Rocky Mountain goat are multiplying rapidly and are in good condition. Large herds may be seen about mount Kerkeslin, the shale banks on the Snake Indian river, Smoky river, Colin range, and Maligne lake. They are also found to be in increasing numbers between Circus valley and Whistler mountain, where they keep to high altitudes. The supervising game warden places their number at between 9,000 and 10,000.

Black bear, cinnamon bear, and grizzly bear are becoming numerous. Grizzlies have been seen during the spring and early summer in the low valleys, especially the Athabaska valley, around Devona and Hawse. They are also found in numbers in the Moose Horn valley. Last year there were estimated to be 5,000 bear of all kinds in the park.

Moose range in practically every valley and are becoming very plentiful. These animals have been seen in large numbers about the Brazeau, Rocky, and Snake Indian rivers, and last fall twenty-eight splendid specimens were seen at Four Point camp near Nigel pass. There are at least 10,000 moose in the park.

The season was particularly good for deer which now inhabit practically every valley in the park. They have shown a marked increase and are in fine condition. The Athabaska and Brazeau valleys are favourite feeding grounds for these graceful animals which now number in the park approximately 25,000.

Caribou are steadily increasing in number. Their range is along the northern boundary about Byng pass and Twin Tree lake, the Tonquin and Circus valleys and Smoky river. There are at least 9,000 caribou in the park.

Beaver, marten, lynx, and coyote are on the increase. New beaver houses and dams were noticed on several creeks and many lakes abandoned by these animals years ago are again being occupied by them. Wolf and wolverine are not so numerous as in previous years.

Sports.—Fishing was particularly good during the season. Fine catches were made at Caledonia lake, Jacques lake, at Buffalo prairie and in the Brazeau river. The 250,000 speckled trout fry deposited in Maligne lake last June appear to be doing well. A shipment of 50,000 rainbow trout eggs hatched at Jasper during the summer was distributed in Cabin lake.

During the winter a party of skiers from Jasper made the first ski trip on record to Banff. The journey took fifteen days to accomplish and was made during bitterly cold weather. Three high mountain passes had to be crossed and 160 miles of unbroken trail followed. Food supplies had been cached several months in advance at locations which would be accessible under skiing conditions and free from the depredations of wild animals. It was a noteworthy achievement.

In the month of March a party of skiers from Minneapolis visited Jasper park. Under the leadership of an experienced guide, the party proceeded through the Maligne Lake district, over McLeod pass, down to Brazeau lake, thence up Brazeau river and over Nigel pass to camp Parker, returning to Jasper via Brazeau lake, Poboktan pass and Maligne lake. The members of the party were so impressed with the trip they expressed an intention of returning next winter.

WATERTON LAKES NATIONAL PARK

Improved facilities for taking care of tourists and good weather conditions combined to give Waterton Lakes park its most successful year. The total number of registered visitors was 48,592, as compared with 26,002 the previous season. Of these 36,838 were from Canada, 11,673 from the United States,



Trail Riders—Waterton Lakes National Park.

62 from transatlantic, and 19 from transpacific points. The total number of motor cars entering the park was 14,725.

Many improvements were made in the townsite by planting trees, laying out flower beds, and grading, gravelling, and oiling the streets. Building operations were started on eight new buildings, and a fine addition was made to the school-house. Construction work on the new Roman Catholic church was well advanced.

Sports.—The facilities for sport were extended and the golf links, tennis courts, and bathing beaches were thronged during the season. At the golf course a new club-house was completed. The fairways and greens were in good condition, and accommodated over 60 per cent more players than last season. The tennis courts at the recreation grounds were maintained in excellent condition, and the bathing beach at Linnet lake was improved. Owing to the increased number of campers at Waterton lakes the campsite was extended, new sites provided, three new shelters erected, and an addition made to the community house.

Roads and Bridges.—Work on the Akamina highway progressed, and the road is now in good condition from the townsite to the junction with Cameron Lake road. The Pass Creek road was graded as far as the upper bridge and in places relocated. Beyond this point to Red Box canyon the road where necessary was gravelled. On the Pincher Creek entrance road the work was mainly confined to straightening the "S" bend. At Waterton bridge the approaches were improved and the bridge itself strengthened.

During the tourist season the roads leading into Waterton Lakes park were in good condition. The road from Cardston to the park, which connects with the motor highway leading into the United States, was kept in repair by the provincial authorities and also the road from Cardston to Macleod. The park was thus connected with roads to the south and with a good gravel highway as far north as Edmonton.

Trails.—All trails were kept in a good state of repair. Six miles of construction work was carried out on Carthew trail, which is now passable from Cameron falls to Cameron lake. This scenic way when completed should prove one of the most popular in the park. Work was also done on the Bertha Lake Shore, Pass Creek, and East Boundary trails.

Fires.—Seven fires were reported during the season but by prompt measures these were quickly controlled, and the damage done was negligible. At Cameron lake where the largest of these fires occurred a new cabin was built and furnished with fire-fighting equipment.

Sanitation.—An officer of the Department of National Health made an inspection of sanitary conditions and arrangements were made to ensure satisfactory water supply and sewage disposal. An incinerator was built and better facilities provided for the disposal of refuse.

Wild Life.—Wild life of many kinds appears to be on the increase. Mule deer, beaver, coyote, and rabbit are plentiful throughout the park, while elk, mountain sheep, and mountain goat are steadily increasing in numbers. White-tail deer, moose, wolf, marten, lynx, and fox are scarce, and bear show a noticeable decrease. Of particular interest is the great increase in beaver. There are now over 1,500 of these animals in the park.

YOHO NATIONAL PARK

Motor travel to Yoho national park totalled 8,117 cars carrying 26,431 persons. The season was a particularly dry one, and due to the absence of fires and the general good condition of roads and trails, ideal for visitors. The

heaviest traffic to the park was from the east, entries by the Kicking Horse pass showing 5,268 cars and 17,036 persons. Of these 4,143 cars were Canadian and 1,125 foreign. Eastbound cars totalled 2,847—2,457 Canadian and 390 foreign—carrying 9,395 persons. This is an increase over the previous year of 982 cars and 2,291 passengers.

During the season many betterments were made in the park. The town-site of Field was much improved, trees pruned, and streets regraded. Work on the residence for the park superintendent was started, a new fireproof gasoline and oil house constructed.

The camp sites throughout the park were kept in splendid condition. At the Kicking Horse campsite a new community kitchen was erected and equipped with camp stoves, tables, and benches. Registrations at this camp ground showed 928 cars and 3,328 people. Camps were opened on the roads leading to Yoho and Emerald lakes and these as well as the camp grounds at Field and Chancellor peak were well patronized during the season by the motoring public.



Alpine Climbing—Yoho National Park.

Road Improvement.—A great deal of repair work was done on the main and subsidiary roads. The main highway from the east to the west boundaries of the park was maintained in excellent condition. The road was widened in places and the whole highway oiled. On the two and one-half-mile section of road near Misko the grade was widened. Between the railway crossing and the bridge over the Kicking Horse river, the river bank was matted for a distance of about 600 feet. The Ottertail road was graded and the Yoho and Emerald Lake roads improved. On the Yoho road a considerable amount of log crib work was done to widen the grade to standard width, and 1,600 feet of guard-rail constructed. The whole of the road was surfaced, and the turns at the Switchback widened. Portions of the road were oiled. Travel on the Emerald Lake road is always particularly heavy during the period the Chalet

is open, and besides widening the road a great deal of surfacing was necessary to keep it in condition. The roads were regularly patrolled by the Royal Canadian Mounted Police and throughout the season no serious accidents were reported.

In co-operation with the Canadian Pacific Railway Company, park officials commenced improving and developing the area near the Great Divide. On both sides of the summit the stumps and debris are being cleared away. A new channel was made for the creek. At a point just below the main highway the channel was widened to form a pond, at the outlet of which a waterfall was constructed.

Trails.—New trail construction consisted in building an extension to the Otterhead trail up Otterhead creek for a distance of five miles. This will greatly facilitate fire protection work as it makes Otterhead valley accessible to workers with fire equipment. Amiskwi, Summit lake, Emerald lake, Burgess pass, Emerald creek, Upper and Lower Twin falls, President glacier, and Ottetail trails were cleared and repaired. These trails open on some of the most spectacular scenery in the Rockies. Signboards showing mileage were placed at all points of trail intersection.

Wild Life.—Wild life, including moose, deer, and fur-bearing animals, is on the increase. Fishing in the lakes and streams of the park was better than in previous years. Ninety thousand rainbow trout fry were distributed in the park waters from the Banff hatchery. Of these 20,000 were placed in Cataract creek, 10,000 in Ross lake, 25,000 in lake O'Hara, 5,000 in Giddie creek, 20,000 in Emerald lake and 10,000 in Yoho lake.

Fires.—During the season four railway fires were reported but owing to prompt action were quickly controlled. Only one bush fire, caused by lightning, did extensive damage. This outbreak along the river burned over an area of about 1,500 acres.

GLACIER NATIONAL PARK

The season was a quiet one in Glacier park as far as tourist travel was concerned. This may be attributed to the fact that at the present time the park lacks tourist accommodation. Since the dismantling of the old Canadian Pacific Railway hotel at Glacier no new building has been erected. The building of the Big Bend highway through the valley of the Columbia river will no doubt result in increased travel to Glacier park, as the road will skirt the park and open this spectacular Selkirk region to motorists from the Pacific coast and the Prairie Provinces.

Roads.—Early in the season the road gang repaired the road between the railway station and the site of the old Glacier hotel. The Rogers Pass road and the road to the Nakimu caves were graded and repaired. Mount Hermit, Rogers Pass, Flat Creek, Baloo Pass, Beaver River, Grizzly Creek, and Asulkan trails were gone over and put in good condition. An addition was made to the warden's cabin at Glacier. Repairs were also made to the Flat Creek cabin and the caretaker's cabin at the Nakimu caves.

Nakimu Caves.—Development work at the Nakimu caves was continued. The passage-way from Number Two entrance through Satan's Palace to the Ball Room was widened and improved. Concrete and wooden stairways with handrails were constructed. In Number Three cave the stairways were repaired and at points replaced.

Alpine Club.—The Alpine Club of Canada held their twenty-fourth annual camp on the site of the old town at Rogers pass. The visitors, who came from many parts of the world, numbered 142.

Wild Life.—Wild life in the park is plentiful. Goat, caribou, deer, and bear are numerous, and the fur-bearing animals appear to be on the increase, particularly marten and beaver.

KOOTENAY NATIONAL PARK

The Banff-Windermere highway was opened to tourists in May and a good year was reported. There was a slight decrease in travel from the Prairie Provinces attributable to business depression. During the season 16,121 cars carrying a total of 51,772 passengers registered in the park. Of the visitors 39,444 were Canadians and 12,328 citizens of the United States.



Falls, Marble Canyon—Kootenay National Park.

The bathing house at the Sinclair Radium hot springs, which was opened last June, had a record attendance. During the season 25,064 bathers made use of the baths. The pool is now 110 feet in length, an extension of thirty feet having been made last October. Three new cabins were erected by the Canadian Pacific Railway company on their property at the Radium hot springs. Further building operations included the superintendent's residence and garage.

Campsites.—Improvements were made to all campsites and at Sinclair Canyon campground two new shelters were erected. During the month of November all the cabins were removed from the Bungalow camp at Vermilion crossing to Storm mountain, with the exception of the main building which was transferred to the Royal Canadian Mounted Police for use during summer patrol work.

Roads and Trails.—The highway was maintained in splendid condition. Double hub rails were placed at curves in the road and no accidents were reported during the season. The old Settlers road from the highway to the southern boundary of the park was made fit for motor travel. This in addition to being of interest to tourists is important for fire protection work, as fire equipment may now be moved and patrols made by car. Two miles of motor road were built from Kootenay Crossing up Kootenay valley and the remainder of the trail cleaned out to the northern boundary of the park. Three miles of trail were also reconstructed up the Hawk Creek valley, and two additional miles of trail cleared. This trail when completed will connect with the Red Earth trail over Ball pass in Banff park now under construction. A survey was made for the location of a trail from Floe lake to Wolverine pass. When this and the Hawk Valley trail are completed a through scenic trail will be provided from Banff to Yoho park via Kootenay park.

Fires.—Although the season was unusually dry no serious fires occurred.

Wild Life.—A marked increase in wild life of all kinds was noted. Along the Kootenay valley bear, moose, and elk were numerous, and hunters during the season reported plenty of game outside the park boundaries.

MOUNT REVELSTOKE NATIONAL PARK

Work was begun on the lower slopes of Mount Revelstoke highway the last week in April. At narrow points the road was widened and put in good shape to the summit of the mountain beyond lake Balsam, where a loop in the road was constructed to facilitate the turning of cars. During the season 1,411 persons registered at the forest outlook station at the summit. This number, however, represented only a percentage of the people who actually entered the park.

Roads and Trails.—The public camping ground laid out in 1928 on the shores of Balsam lake, was extremely popular with tourists. The road leading from the main highway to the lake was conditioned to enable cars to drive right to the campground. An extension of two miles was made to the fire trail commenced last year towards the Clach-Na-Cuddin slopes. The trail passes through dense timberland and is an added safeguard for fire-protection purposes. All other trails in the park were cleared and repaired, particular attention being given to the Lindmark and Greely Creek trails, and those leading to Eva and Millar lakes, as the areas to which they lead are of increasing interest to visitors.

The three wooden posts which had been planted by H.R.H. the Prince of Wales, H.R.H. the Duke of Connaught, and H.R.H. Prince Arthur of Connaught, to mark various stages of road construction, were replaced by stone cairns each with a bronze tablet suitably inscribed. The sectionmen's cabins at the four-mile and sixteen-mile posts were repaired and further improvements made on the ski hill. The outside turn on the runway was built up, and benches were constructed for the convenience of spectators. The annual ski tournament was held the first week in February and was well attended.

Fires.—Five fires were reported during the season. With the exception of one, which burned over about one hundred acres of timberland, they were extinguished before any material damage was caused.

PRINCE ALBERT NATIONAL PARK

Over ten thousand tourists visited Prince Albert national park last year, which indicated the increasing popularity of the park as a resort for campers, canoeists, and fishermen. During the month of August the Regina Board of Trade held a convention in the park, there being present 160 persons. A delegation from the newly formed Provincial National Parks Association also spent four days in the park viewing points of interest. Among distinguished visitors during the summer were Lord and Lady Cromer and party.



Clear Lake Golf Course—Riding Mountain National Park.

Building.—Considerable activity took place in the Prospect Point residential subdivision last year. Three new cottages were erected and construction work begun on two. Many inquiries were made about building lots along the southwest shore. When the road to the Narrows is completed this district should be popular as the building sites are in close proximity to lovely sand beaches. In the business subdivision one new store was erected and five lots filed on by firms which propose building early next year. The park superintendent's residence at Waskesiu lake is now ready for occupation.

Campsites.—Last spring the campsite along the main beach of Waskesiu lake was enlarged by underbrushing, clearing and draining. During July and August further extensions were made to this site to accommodate campers. An attractive area was cleared on Kingsmere lake, two small campgrounds were established on Crean lake, and a large one at Sandy lake. The last mentioned is situated half way between Prince Albert and Waskesiu lake, and is made use of by those wishing to break the journey to Waskesiu.

Roads.—The highway to Waskesiu, completed in the fall of 1928, was maintained in good condition. The entire road was gravelled and construction work was also done on the Meridian-Rabbit road.

Air Base.—In view of the great increase in commercial flying in the northern part of Saskatchewan it was considered advisable to establish an air base at Waskesiu lake. This was done and the base was used during the summer and fall by privately owned and Government forestry planes.

Telephones.—The forestry telephone lines were extended to the air base at Waskesiu lake and to Crean lake. These communications proved very useful in game-protection and fire-suppression work.

Permits and Licences.—Seventy permits and licences were granted last year. These included: 7 timber, 5 building, 14 hay, 10 lot-rental, 5 hay-cutting, and 5 air-base permits; and 14 chauffeur, 3 motor-livery, and 2 boatman's licences.

Fires.—Six fires were reported in the park during the year which were extinguished at a total cost of \$1,489.70. The majority of the fires started outside the south and west boundaries of the park.

Wild Life.—There was a noticeable increase in wild life last season. Moose, deer, and elk were numerous and are becoming quite tame. Caribou, while not so plentiful, were reported in sections of the park where they have not been seen for years. Birds, particularly waterfowl, are multiplying rapidly.

The investigations of the game fish possibilities of the waters of Prince Albert park, which are being carried out through the assistance of the Biological Board of Canada, were continued by a small field staff of trained workers. The general survey begun the previous year was extended by additional work on Crean and Kingsmere lakes and on those waters in the recently added northern section of the park, namely, La Vallee, Burntwood, and Clearwater lakes with their tributary streams.

Detailed observations on possible spawning grounds and water temperature in Waskesiu lake were also obtained with a view to the experimental introduction of small-mouthed bass into this lake. While the mean temperatures and food conditions are not wholly favourable an experimental planting of adult bass and of fry was recommended. Kingsmere lake was found suitable for game trout and the experimental introduction of the "Kamloops" type was recommended for this lake and speckled trout for MacLennan river. The committee also suggested that additional efforts should be made towards the conservation of the present game fish fauna (1) by modification of the existing game laws to suit the needs of the park and (2) by a campaign for the education of sportsmen and visitors.

ANIMAL PARKS

BUFFALO PARK

Although grazing conditions in the park were poor as compared with other years, the animals were in good condition and came through the winter well. The following table shows the animals in the park on March 31, 1930:—

Buffalo.....	5,016
Elk.....	654
Moose.....	66
Mule deer.....	1,994
Antelope.....	1
Yak.....	33
Domestic cattle.....	13
Hybrid stock.....	20

Farming operations were carried on as usual. Early in April 3,600 bushels of oats were shipped to Banff and Jasper national parks. Due to strong winds and dry weather grain crops were very poor. Weather conditions were, however, good for hay. Approximately 1,500 tons were cut on the Ribstone meadow and 18 tons of rye grass taken off a plot at the farm which had been seeded down two years ago.

Owing to the rapid increase in the buffalo herd, 500 buffalo were slaughtered for sale. Fifty carcasses were reserved by the Department for native relief purposes in the North.

Fencing.—Fence repair work was carried on throughout the season and over 100 miles of fence were put in shape. In addition to this work a change was made in the location of the fence at the northwest corner of the park to include a portion of section 35, township 44, range 8, west of the Fourth Meridian in which there is good grazing. A change was made in the position of the Hardisty gate, and a short piece of fencing constructed near Jamieson lake for the convenience of riders when on the round-up.

Fire Protection.—Fireguards, both inside and outside the main fence, as well as cross guards were ploughed. Practically all this work was done by park teams. Additional hose was supplied for use at the farm buildings and improvements made at the hydrants for quicker service.

Roads.—Maintenance work was done on the new road from Wainwright to the Home Paddock entrance gate, and the old trails which had worn into deep ruts were repaired.

Buildings.—In the fall the park office was moved from the old location at the superintendent's residence to the new Federal Building in Wainwright. Extensions were made to the foreman's cottage and improvements to the riders' boarding house at the abattoir. A well was drilled in the winter quarters to provide water for the buffalo.

Permits.—Dry wood timber permits were issued to settlers living in the vicinity of the park for 175 cords, also for 4,500 green willow pickets.

Predatory Animals.—There was a marked decrease in the number of coyote in the park and most of those destroyed were affected with mange. Altogether nine were shot by the wardens.

Visitors.—During the season 18,753 people registered at the park. The numbers of visitors entering at three of the park gates were as follows:—

Wainwright gate (Home Paddock).....	15,978
Hardisty gate.....	1,666
Farm gate.....	1,109
Total.....	18,753

ELK ISLAND PARK

Visitors to Elk Island park totalled 22,611, which represented an increase of 3,656 over the registrations of the previous year. In addition to the fine herds of animals in the park the bathing beaches and picnic grounds afforded the tourist a wide diversity of entertainment. The buffalo herd was in splendid condition and the wardens reported an increase in moose, elk, and mule deer. During the season two animals—an elk and a moose—were killed for specimen purposes and presented to the museums at Banff and Ottawa. Animals in the park now number 716 buffalo, 398 moose, 500 elk, and 200 deer.

Repair work was carried on as usual. The main fence was put in good shape and all fireguards conditioned. Additional guards were ploughed along the

west boundary for a distance of four miles. A lookout tower was erected west of Astotin lake and connected by telephone with park headquarters and the tower and headquarters of the Cooking Lake forest reserve.

Haying operations, owing to the dry season, were not extensive. One hundred and ten tons were stacked, which, with the large tonnage of hay carried over from the previous year, provided a supply for the year's feeding requirements.



Elk—Elk Island National Park.

Roads.—The roads in the park were maintained in good condition by use of the grader. Several culverts were replaced. The construction of the road from Sandy beach to the main gate was completed and several miles surfaced with gravel.

Wild Life.—Bird life showed an increase. Blue heron nest in numbers on Crane island and migratory birds are plentiful. Prairie chicken and partridge appear also to be on the increase. There was a marked absence of coyotes in the park, only one being killed during the season.

RECREATIONAL AREAS

POINT PELEE PARK

The season was an exceptional one so far as tourist travel was concerned. It is estimated that 20,800 cars entered the park carrying a total of 83,200 visitors. The number of campers who took out permits for less than a four days' stay was 446. Of these 120 were from Ontario and 326 from the United States. Camping permits for more than four days numbered 89; 50 from Ontario and 39 from the United States.

Wild Life.—Wild life was reported on the increase. Squirrel, raccoon, and muskrat were plentiful. Quail were about the same in numbers, while pheasant showed a marked increase. Migratory birds were never more plentiful. Wild duck—black, grey, and blue-bill—were present in thousands. A great many whistling swan were seen in the marshes, and during the spring and fall migrations of wild geese were abundant.

HISTORIC PARKS

FORT ANNE NATIONAL HISTORIC PARK

The total number of visitors to Fort Anne park for the calendar year was estimated at 18,000. Of these, 13,516 were shown through the museum, an increase of 2,126 over the record for 1928. Among the notable visitors were a party of ninety members of the Canadian Women's Press Club; the captain and seven other officers of the French warship *Aldabaran*; officers of H.M.S. *Cape-town*; Hon. William Phillips, United States Minister to Canada, and Mrs. Phillips; M. Carteron, the Consul General for France, and Madame Carteron; the Right Hon. Lord Pentland; and Mr. and Mrs. E. R. Warren, of Boston, Mass. Mrs. Warren is a direct descendant of Paul Mascarene, the officer who mounted the first British guard in Fort Anne on the taking of the place in 1710.

On July 3, a party from Central Canada numbering 180 visited the fort. The Raymond-Whitcomb Tourist Agencies in August brought 73 visitors. On September 3 there was an excursion of 94 persons, members of the Schuetzen Club of New York. The teachers and pupils from the Annapolis County Academy visited Fort Anne on three occasions in November and once in December.

Several interesting discoveries have been made in the fort grounds during the year. During a visit to the Canadian Archives at Ottawa in November, 1928, the Honorary Superintendent was able to examine some old pictures of Annapolis Royal, dated 1751, which showed a blockhouse about which nothing had locally been known. Photographs of the pictures were obtained and with their aid the site was discovered. After some digging the foundation of the blockhouse was revealed. On the War Office plan of the fort in the Provincial Museum at Halifax the blockhouse shown in the picture is plainly marked and also another one hitherto unknown east of the fort, the exact location of which it will require a surveyor to determine.

Through the agency of the Historical Association of Annapolis Royal, Fort Anne came into possession of a fine portrait in oils of Queen Anne. The canvas is 25 by 30 inches and the picture is enclosed in a valuable old English carved gold frame. Another valuable gift received from the same association was a water-colour picture of Lieutenant George Wedderburn, of the 76th Regiment, who was the last commandant of Fort Anne, leaving in 1854 when the place was finally abandoned as a military post.

Protection of Migratory Birds

In June last, amendments were made to the regulations based on the *Migratory Birds Convention Act*, following the receipt of suggestions from the different provincial game officers and the chief federal migratory bird officers. A number of changes were made throughout Canada. The close season for the following migratory game birds was extended for an additional period of three years: little brown, sandhill, and whooping crane, swan, curlew, greater and lesser yellow-legs, black-bellied and golden plover, and all shore birds, except Wilson's or jack-snipe and woodcock. It was provided that lying in wait with firearms, with or without decoys, for migratory birds, should be considered

prima facie evidence of hunting. The daily bag limit for woodcock was reduced from ten to eight, and a seasonal bag limit placed upon this species in the provinces in which it occurs. In Nova Scotia, the season for duck and rail, and goose and brant was changed. In New Brunswick, the opening date for the shooting of Wilson's snipe and woodcock on the islands in the Grand Manan group was made to coincide with that for duck, goose, brant and rail, in that part of New Brunswick. In Ontario, the season for taking Wilson's snipe was made to coincide with that for duck, goose, brant, and rail. In the province of British Columbia, the use of decoys of any kind in the hunting of band-tailed pigeon was prohibited, and the special provision concerning the hour at which shooting might begin on the first day of the open season was changed.



Young Red Throated Loons—The Bluff Harbour, Saguenay County, Quebec.

The staff for enforcing the *Migratory Birds Convention Act* continues at the same strength and there has been complete co-operation with provincial game departments. In accordance with the original plan the enforcement of bird protection measures has been left largely in the hands of the provincial authorities, thus avoiding duplication.

Some hundreds of honorary game officers co-operated with the branch in enforcing the law, and in furnishing valuable information respecting bird conditions in their localities. Honorary officers were kept informed on bird protection subjects by a system of circular letters. The members of the Royal Canadian Mounted Police helped materially by enforcing the law and by conducting bird observations in various districts, and Dominion Fishery officers lent valuable assistance as well. A staff of officers was maintained in the Maritime Provinces for the enforcement of the migratory bird law. All members of the New Brunswick provincial police were appointed *ex officio* game officers under the *Migratory Birds Convention Act*.

Drought throughout a large part of the Prairie Provinces greatly affected water-bird life during 1929. In parts of Saskatchewan there was believed to be a reduction of nearly ninety per cent in the number of duck raised, and conditions were probably as bad in some other parts of the prairie breeding area.

In addition to his general duties, the Chief Federal Migratory Bird Officer for the provinces of Ontario and Quebec, with the aid of a staff of temporary assistants and the bird sanctuary caretakers, carried out valuable protection work with respect to the abundant sea-bird life on the north shore of the gulf of St. Lawrence in Quebec during the summer.

The Chief Federal Migratory Bird Officer for the western provinces, while devoting much time to co-operative work with the provincial game authorities, was occupied as well in supervising the sanctuaries and public shooting grounds in these provinces and in making inspections of lands reserved. The latter work was undertaken jointly by the province, the Dominion Lands Administration and this branch.

Ninety-one prosecutions were instituted by Dominion officers in connection with the enforcement of the Migratory Birds Conservation Act. These resulted in 83 convictions. Prosecutions instituted by provincial officers are not included in this summary.

Oil Pollution.—The department has worked in conjunction with the Department of Marine and Fisheries respecting the loss of bird life by oil dumped from vessels in navigable waters, or reaching navigable waters in other ways, and all losses of bird life from oil have been referred to that department. Following the conference at Washington, in which Canada took part, a draft convention on oil pollution of the high seas was prepared, but no international agreement for control has yet been concluded.

Bird Censuses.—The investigation to learn the distribution and movements of waterfowl, and their fluctuation in numbers from year to year, undertaken by this branch and the United States Biological Survey, was continued and has resulted in valuable data being collected from hundreds of wildfowl observers. Bird censuses taken on Christmas day were made at many points by members of the various naturalists clubs and by the officers of this branch. At Ottawa twenty-four species were found. Bird censuses taken from year to year give a comparative idea of the distribution of bird life at a time when it is at its lowest ebb.

Permits and Licences.—Permits and licences were issued for the calendar year 1929 as follows:—

Collection of birds for scientific purposes	163
Possession of birds for propagating purposes	129
Capture of birds for propagating purposes	38
Destruction of certain birds when found to be seriously damaging agricultural or fishery interests	66
Permits allowing the shooting of predatory birds in bird sanctuaries, etc.	21
Taking of birds for banding purposes	130
Practising taxidermy	70
Shooting of geese and brant in Shelburne, Queens and Halifax counties, Nova Scotia, in the open season provided by law	425

Investigations.—Mr. J. Dewey Soper, by the co-operation of this Branch and the North West Territories and Yukon Branch, in 1928 was sent to south-western Baffin Island, for the purpose of studying birds and mammals, and especially to find the breeding grounds of the blue goose. He was successful in locating these breeding grounds. Assistance was extended Mr. Soper in various ways. His report of the discovery has been published by the North West Territories and Yukon Branch.

Bird Banding.—The Branch worked in full co-operation with the United States Biological Survey in tracing and recording migrations of birds by banding. Nearly all the work is done by voluntary co-operators. The official records of bird-banding returns for Canada are kept in this branch. From January 1, 1929, to December 31, 1929, 16,634 records of birds banded by

Canadian co-operators and 7,955 repeats and returns on birds already banded were received, an increase of 5,977 records over last year, and of 5,430 repeats and returns.

Sanctuaries for birds are increasing everywhere: small estates, villages, golf courses, air ports, and lakes with bordering marshes are being included. Action to reserve sanctuaries in Canada would not be effective if sanctuaries were not reserved in the United States. Consequently, it is of great interest to Canadians to know that the work of establishing sanctuaries is progressing in that country.

Public Shooting Grounds.—Certain lands near Pitt lake, British Columbia, were reserved for public shooting-ground purposes.

Educational Work.—Various camps attended by young people were visited, and instruction given in bird protection and natural history subjects. Requests for lectures on wild-life conservation were received from more than forty organizations that conduct summer camps for young people. The total distribution of pamphlets amounted to 72,783. Publicity concerning the shooting season and other bird protection matters was obtained through the distribution of 44,710 posters, 22,783 copies of the *Migratory Birds Convention Act*, and 24,819 abstracts of the regulations under it. Circular letters regarding the changes in the regulations for the season 1929 were distributed to the press throughout Canada.

Numerous lectures on bird protection were given by members of the permanent staff, and lantern slides were furnished to the honorary game officers and others for lecture purposes. Addresses on birds and bird protection were delivered over the radio. The lantern slide library contains 5,365 slides covering 1,143 subjects, and showing 391 different species of birds. In all, 3,079 slides were loaned free of charge.

Bird-House Competitions.—Much interest has been shown in the building of bird-houses, and bird-house competitions have been held under various auspices throughout Canada.

Contact with Scientific and Conservation Organizations.—During the year the branch was represented at the following national and international meetings interested in the protection and conservation of wild life:—

September, 1929—Meeting of International Association of Game, Fish and Conservation Commissioners, at Minneapolis, Minnesota.

October, 1929—47th stated meeting of the American Ornithologists' Union, at Philadelphia, Pennsylvania.

December, 1929—National Game Conference of the American Game Protective Association at New York, N.Y.

December, 1929—Meeting of the Province of Quebec Association for the Protection of Fish and Game at Montreal, P.Q.

March, 1930—Organization meeting of the Canadian Game Protective Association, at Ottawa, Ontario.

Historic Sites and Monuments

During the past year, work in connection with the preservation and marking of historic sites or structures eminently national in character, was carried on. In addition a number of sites were acquired on which to erect memorials and a scheme of development formulated for some of the larger areas already controlled. The annual meeting of the Historic Sites and Monuments Board, which acts in an advisory capacity to the Department of the Interior regarding all historic matters, was held in Ottawa, when a large number of sites were reviewed and from these a selection made for attention in future years.

Since the inception of this work, in 1919, approximately 950 sites have been under consideration and from these the Board has selected 246 as being of national importance and recommended them to the Department for preservation or marking. The Board has also suggested the marking of the birth-places of a number of outstanding personages in Canadian history by tablets bearing appropriate inscriptions.

Sites Marked

In previous reports a summary of sites already marked, now numbering 150, will be found. During 1929-30 the following sites of national importance were marked and the services of important personages commemorated by the placing of tablets and the erection of monuments:—

Admiral d'Anville's Encampment, near Halifax, N.S.—A rubble-stone cairn, with a bronze tablet affixed, was erected on a plot of land donated by Mr. E. Clayton, at the intersection of the Old French Landing and Bedford roads, to mark the place of encampment of the formidable but storm-shattered expedition sent from France under the command of Duc d'Anville, in 1746, to recover Acadia.

Fort La Have, La Have, N.S.—A cairn with tablet was erected on the light-house reserve at Fort Point, La Have, to mark the site of the fort built by Isaac de Razilly, Lieutenant-Governor of Acadia, in 1632, from which headquarters he administered the colony.

Fort Jemseg, Lower Jemseg, N.B.—A cut-stone monument with tablet, enclosed by an iron fence, was erected on a small plot of land donated by Mr. F. C. Nevers, to mark the site of the fort built in 1659 by Col. Thomas Temple, Governor of Acadia. This was the first trading post established by the English on the Saint John river.

Battle of the Petitcodiac, Hillsborough, N.B.—A cut-stone monument with tablet was erected near the railway station at Hillsborough to commemorate the events associated with the engagement which took place in the vicinity in September, 1755, between British troops from Fort Beauséjour and a French force commanded by Charles Deschamps de Boishebert.

Major Gilfrid Studholme, St. John, N.B.—A cut-stone monument with tablet was erected on Fort Howe hill to commemorate the public services of Major Gilfrid Studholme, a notable figure in the early history of New Brunswick. Major Studholme built Fort Howe in 1778 and was its commander. He zealously assisted the settlement of United Empire Loyalists.

Battle of Chateauguay, Allan's Corners, P.Q.—A tablet was affixed to the granite monolith, which stands on the site, to commemorate the victory of a small Canadian force and a little band of Indians under the command of Lieut. Colonel Charles Michel de Salaberry over a large body of United States troops which attempted the invasion of Canada on October 26, 1813.

The Royal Navy, Ile-aux-Noix, P.Q.—A tablet was affixed to the gateway at the south entrance to Fort Lennox to perpetuate the memory of the services of the officers, seamen, and soldiers of the Royal Navy, Royal Marines and Provincial Marines, who fought in defence of Canada on lake Champlain in 1776-77 and 1812-14.

Battle at Montgomery's Creek, near St. Johns, P.Q.—A cairn with tablet was erected on the St. Johns Golf Club property, adjacent to the King's Highway, to commemorate the events associated with the battle of September 6, 1775, when Montgomery's invading army, surprised by a force of Mohawks and Canadian Indians, was compelled to re-embark and retire to Ile-aux-Noix.

Coteau-du-Lac, P.Q.—A cairn with tablet, was erected adjacent to the public road at Coteau-du-Lac to commemorate the early events associated with that place. A canal was constructed in 1779-80; later a blockhouse, and then a fort were built for its protection. These proved of valuable service during the wars of the American Revolution and of 1812. Coteau-du-Lac was for many years the chief port of entry for imports into Upper Canada.

First Railway in Canada, St. Johns, P.Q.—A tablet was affixed to the railway station at St. Johns to mark one terminal of the first railway in Canada which led originally to Laprairie and was constructed to connect lake Champlain with the river St. Lawrence. It was opened for traffic on July 21, 1836, by Lord Gosford.

Bishop Alexander Macdonell, St. Raphael, Ont.—A cut-stone monument with tablet was erected adjacent to the public highway in front of the parish church at St. Raphael West to perpetuate the memory of the Honorable and Right Reverend Alexander Macdonell, patriot, military chaplain, educator, and legislator who lived and laboured with success at this place for many years.

Niagara Portage Road, Stamford, Ont.—A stone monument with tablet was erected on Stamford village green, adjacent to the Portage road, to commemorate events associated with the Queenston-Chippawa portage road, opened by United Empire Loyalists in 1788. This was the principal route of travel and trade to the Upper Lakes region until the opening of the Welland canal in 1829, and the completion of railway lines in 1854.

Ridgeway Battlefield, Ridgeway, Ont.—A cairn with tablet, was erected on a plot of land, adjacent to the Garrison road, donated by the township of Bertie, to perpetuate the memory of the officers and men who fought there in defence of Canada against Fenian Raiders on June 2, 1866.

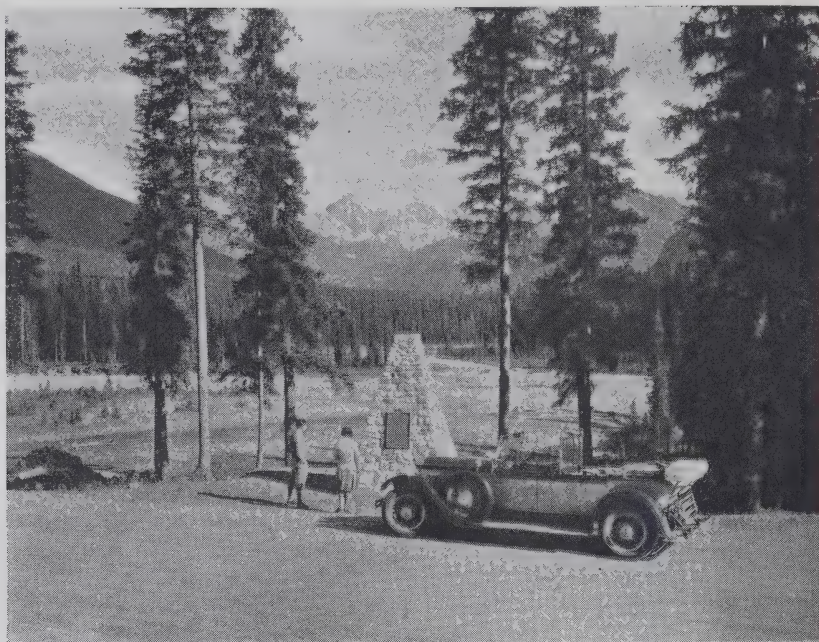
Starting Point Brock's Expedition, Port Dover, Ont.—A cairn with tablet was erected in Powell park to mark the spot from which Major General Isaac Brock set out with his army of three hundred men, on August 8, 1812, to relieve the invaded western frontier. His brilliant capture of Hull's army at Detroit, with a much smaller force, saved this province to the Empire and made Brock the hero of Upper Canada.

First Electric Telegraph, Toronto, Ont.—A tablet was affixed to the St. Lawrence market building, which now stands on the site of the old city hall of Toronto, to mark one terminal of Canada's first electric telegraph line, connecting Toronto with Hamilton, inaugurated December 19, 1846.

Fort Fork, Alberta.—A cairn with tablet was erected adjacent to the road allowance passing through Lot 19, Shaftesbury settlement, to mark the site of the fort built by Sir Alexander Mackenzie, on the east bank of the Peace river, in 1792, and from which he set out in the following year on his quest for the Western Sea. This first crossing of North America north of Mexico, stimulated the commercial development which saved a coast on the Pacific to Canada and the Empire.

The Last Spanish Exploration, Point Grey, B.C.—A cut-stone monument with tablet was erected on the British Columbia University grounds, between the waters of English bay and the Marine drive, in commemoration of the first friendly meeting of the British and the Spaniards in these waters. The British commander, Captain George Vancouver, established mutual confidence and exchanged information with the Spaniards, Galiano and Valdes, and they then continued the exploration together.

Fort Steele, B.C.—A cairn, with tablet, was erected on a plot of land donated by Mr. William A. Drayton, adjacent to the Fort Steele-Fernie highway, to mark the site of the first North West Mounted Police fort in British Columbia, built in 1887 by Superintendent Sam Steele. The presence of this force secured peace and order in the country at a critical time.



Sir George Simpson Memorial—Kootenay National Park.

Preservation Work

At several larger sites preservation work and improvements were carried out.

Fort Cumberland (Beauséjour), N.B.—The earthworks were repaired, the entrance to the park improved, and a number of markers erected to indicate the various points of historic interest.

Louisbourg, N.S.—The several buildings, vacated by property owners whose rights had been purchased, were demolished and removed; the area fenced; the casemates cleaned out and repaired; and a road built and surfaced from the gateway to the headquarters building.

Fort Chambly, Chambly, P.Q.—Masonry and concrete retaining walls were erected along the river front; a dry stone wall was built along the north side; and the inner walls were repaired and pointed.

Fort Lennox, Ile-aux-Noix, P.Q.—Extensive repairs were made to the north bridge across the moat, improvements made to several buildings, and the moat cleaned.

Fort Wellington, Prescott, Ont.—The blockhouse was re-shingled and painted, the inner palisades repaired and other improvements made to the museum and grounds.

Acquisition of Sites

Arrangements for the acquisition or control of a number of sites recommended by the board were made.

Fort Monckton (Gaspéreau), N.B.—An additional area of two acres was purchased with a view to future development work.

Fort St. Peters, St. Peters, N.S.—The Department of Railways and Canals granted authority for the erection of a memorial on their reserve at St. Peters to mark the site of the fort and trading post built by Nicholas Denys, in 1650.

First Coal Mine in Cape Breton, Port Morien, N.S.—The Dominion Coal Company has donated a plot of land for the erection of a memorial to com-

memorate the events associated with the establishment by the French in 1720, of the first regular coal mining operations in America.

Fort Ste. Anne, Ste. Anne, N.S.—Mr. George E. Fader has donated a plot of land twenty-five feet square, adjacent to the Baddeck-Cape North highway, on which to erect a memorial to mark the site of the fort built there in 1629, for the protection of the French settlement.

First Atlantic Cable, North Sydney, N.S.—The Western Union Telegraph Company has granted permission to place a tablet on the outer wall of the company's cable building at North Sydney to commemorate the events associated with the laying of the first submarine telegraph cable in North America in 1856. This cable connected Cape Breton with Newfoundland.

Wolfe's Landing, Kennington Cove, N.S.—Mr. D. A. McInnis has donated a plot of land on Gabarus bay, with a right of way from the main road, for the erection of a memorial to mark the landing place of Brigadier General James Wolfe's brigade, on June 8, 1758.

First Export of Coal, Minto, N.B.—The Canadian Pacific Railway Company has granted permission for the placing of a memorial on their station grounds at Minto to commemorate the events associated with the discovery and mining of the first coal for export in Canada.

Chambly Canal, Chambly, P.Q.—The Department of Railways and Canals has granted permission for the erection of a memorial on the canal reserve at Chambly to commemorate the events associated with Chambly canal, which was first opened to navigation in 1843.

Benjamin Sulte, Three Rivers, P.Q.—The city of Three Rivers has granted permission for the erection of a bronze plaque at the entrance to the city hall to commemorate the public services of Benjamin Sulte, historian and poet.

First Geodetic Survey Station, Kingsmere, P.Q.—Mr. M. Mulvihill has donated a plot of land twenty-five feet square on King mountain on which to erect a memorial to mark the site of the first Geodetic Survey station in Canada established in 1905.

Opening of St. Lawrence River to All Nations, Quebec.—The Quebec Harbour Commission has granted permission to place a tablet on the wall of the waiting room at the Princess Louise docks, to commemorate the opening of the St. Lawrence to all nations, January, 1850.

Mattawa Portage, Mattawa, Ont.—The Women's Institute of Mattawa has granted permission for the erection of a memorial in a small park controlled by them at the intersection of Main and Water streets, to mark one of the principal portages of the historic canoe route from Montreal to lake Huron and the Northwest.

Southwold Earthworks, near St. Thomas, Ont.—An area of five acres, north of Talbot road, was purchased on which a memorial is to be erected to mark the site of an old Indian stronghold, a unique example of a double-walled aboriginal fort, the origin and antiquity of which remain unknown.

Dominion Lands Survey System, near Winnipeg.—Senator Aimé Bédard and Mr. John T. Haig have donated a plot of land twenty-five feet square, adjacent to the Portage highway, at its intersection with the First Principal Meridian, on which to erect a memorial to mark the site of the first monument on the Dominion Lands Survey, July 10, 1871.

Simon Fraser, Musqueam, B.C.—The Provincial Government has granted permission for the erection of a memorial at Look-Out Point, adjacent to Marine drive, at the west end of the Musqueam Indian Reserve, to mark the place where Simon Fraser ended his adventurous and dangerous exploration of the Fraser river in July, 1808.

APPENDIX

Alpine Club of Canada*Report of the Secretary—Banff Club House, 1929*

Members of the Alpine Club at Banff had a most successful season. Special camp arrangements attracted an unusual number of visitors who made the club house their headquarters for climbs and expeditions in the neighbourhood. Five new cabins were built to replace the original tent houses, making thirteen cabins in all, comfortably furnished, available to members.

The club house was a centre of information for climbing enthusiasts in all mountain matters. Contributing factors to the delightful time spent by members were the improved transportation facilities and good roads, which greatly increased the radius in which one-day outings could be made from Banff.

The usual climbs of the surrounding peaks were made, including the east face of Castle mountain—which for the first time was scaled by a lady—and the peaks in the Fairholme range. One of the outstanding mountaineering feats was a first ascent of mount Sir Alexander by three members of the club from New York: Miss H. I. Buck, Dr. H. J. Gilmour and Mr. E. L. Woolf.

Those in attendance were drawn from England, Scotland, Australia, Germany, China, the United States, and Canada.

Report of the Secretary—Rogers Pass Camp, 1929

The twenty-fourth annual camp of the Alpine Club of Canada was held from July 15 to 31, 1929, in the Selkirk range. Camp was made on the site of the old railway village at Rogers pass in view of the peaks of the Hermit range. A subsidiary camp was pitched at the Hermit hut, about two thousand feet above the valley, and proved an excellent base for climbing. From here mounts Rogers, Tupper, Hermit, and Sifton were ascended by various parties.

The camp differed in several ways from those of other years. When the Connaught tunnel was opened the former railway right of way through the pass was turned into a road and a motor truck became a practical and much-used convenience, as it served the purpose of a passenger omnibus for those who wished to climb the peaks in the Sir Donald chain of mountains and the Asulkan and the Dawson ranges.

Only two days of bad weather were experienced out of the seventeen spent in camp. Of these one was devoted to the annual meeting. The camp fire meetings were greatly enjoyed and proved most interesting. Meetings were addressed by visitors from many parts of the world. One hundred and forty-two members were placed under canvas, including representatives of the Alpine Club, England; the French Alpine Club; the American Alpine Club; the Swiss Alpine Club; the Appalachian Mountain Club; the B.C. Mountaineering Club; the Sierra Club; the Mazamas; the Mountaineers; and the Royal Geographical Society.

The principal mountains climbed were mounts Tupper, Rogers, Avalanche, Eagle, Uto, Sir Donald, Cheops, Ursus Major, Sifton, Selwyn, and Hasler.

Those present were drawn from the following countries: Canada, England, and the United States.

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DEPARTMENT OF THE INTERIOR, CANADA

HON. THOMAS G. MURPHY, Minister

H. H. ROWATT, Deputy Minister

NATIONAL PARKS BRANCH

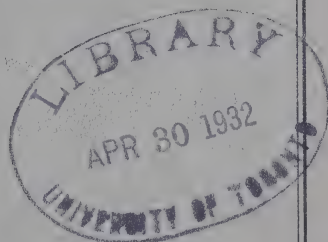
J. B. HARKIN, Commissioner

22nd

Annual report

National Parks of Canada

Report of the Commissioner



YEAR ENDED MARCH 31

1930/1931

OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1932



On the West Peak of Mount Victoria—Banff National Park.

DEPARTMENT OF THE INTERIOR, CANADA
HON. THOMAS G. MURPHY, Minister H. H. ROWATT, Deputy Minister

NATIONAL PARKS BRANCH
J. B. HARKIN, Commissioner

National Parks of Canada

Report of the Commissioner

YEAR ENDED MARCH 31

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NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

GENERAL

The year 1930-31 was an epochal one in the progress and development of the National Parks of Canada. Of outstanding importance was the passing of the National Parks Act on May 30, 1930, and certain other Acts confirming agreements entered into between the Dominion Government and the Governments of the western provinces relating to the transfer of natural resources.

During the period under review, travel to the National Parks assumed gratifying proportions. While long distance travel was affected by the general business depression there was a large increase in the numbers of campers, cottagers, and picnickers availing themselves of the use of the parks. The total number of visitors during the year was 541,350.

General activities of the Parks Branch included: the maintenance and construction of roads and bridges by the Engineering Division as well as the continuance of construction operations on the Big Bend highway, and the establishment of camps in furtherance of unemployment relief work; the care and protection of the buffalo and antelope herds and wild life generally, together with the investigation of breeding conditions of waterfowl by the Migratory Birds Division, particularly those affecting the duck situation in the western provinces where the continued drought caused a serious reduction in hatch during 1930; the acquisition and marking of new sites of national historic interest, and preservation and restoration work; the detection and suppression of forest fires within the parks; the supervision of architectural work in the parks in order that it may harmonize with the scenic surroundings; and the preparation and distribution of literature, pictures, and other publicity matter to extend the knowledge of the advantages and attractions of the national parks.

Development work during the year embraced many improvements in the recently acquired Riding Mountain Park in Manitoba, and Georgian Bay Islands Park in Ontario, providing readier means of access and extending camp areas to accommodate the large numbers of visitors who now make use of these resorts.

NATIONAL PARKS ACT

The National Parks Act emphasizes the inviolable nature of the parks of Canada, and confirms to the people absolute ownership in the eighteen scenic reservations and wild life sanctuaries comprising over 12,000 square miles of territory which constitute the national park domain of Canada. Section 4 of the National Parks Act reads:—

The parks are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to the provisions of this Act and Regulations, and such parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.

Acts confirming agreements made between the Dominion Government and the western provinces define jurisdiction and further safeguard the National

Parks. In substance the clauses in the agreements with the various provinces, relating to the parks, are the same. The agreement with the province of Alberta, in part, reads:—

The parks mentioned in the schedule hereto shall continue as national parks and the lands included therein, as the same are described in the Orders in Council in the said schedule referred to (except such of the said lands as may be hereafter excluded therefrom), together with the mines and minerals (precious and base) in each of the said parks and the royalties incident thereto, shall continue to be vested in and administered by the Government of Canada as national parks, but in the event of the Parliament of Canada at any time declaring that the said lands or any part thereof are no longer required for park purposes, the lands, mines, minerals (precious and base) and the royalties incident thereto, specified in any such declaration, shall forthwith upon the making thereof belong to the province, and the provisions of paragraph three of this agreement shall apply thereto as from the date of such declaration.

The Parliament of Canada shall have exclusive legislative jurisdiction within the whole area included within the outer boundaries of each of the said parks notwithstanding that portions of such area may not form part of the park proper; the laws now in force within the said area shall continue in force only until changed by the Parliament of Canada or under its authority, provided, however, that all laws of the province now or hereafter in force, which are not repugnant to any law or regulation made applicable within the said area by or under the authority of the Parliament of Canada, shall extend to and be enforceable within the same, and that all general taxing acts passed by the province shall apply within the same unless expressly excluded from application therein by or under the authority of the Parliament of Canada.

The Government of Canada will introduce into the Parliament of Canada such legislation as may be necessary to exclude from the parks aforesaid certain areas forming part of certain of the said parks which have been delimited as including the lands now forming part thereof which are of substantial commercial value, the boundaries of the areas to be so excluded having been heretofore agreed upon by representatives of Canada and of the province, and the province agrees that upon the exclusion of the said areas as so agreed upon, it will not, by works outside the boundaries of any of the said parks, reduce the flow of water in any of the rivers or streams within the same to less than that which the Minister of the Interior may deem necessary adequately to preserve the scenic beauties of the said parks.

The agreements also provide:—

The province will not dispose of any historic site which is notified to it by Canada as such and which Canada undertakes to maintain as an historic site. The province will further continue and preserve as such the bird sanctuaries and public shooting grounds which have been already established and will set aside such additional bird sanctuaries and public shooting grounds as may hereafter be established by agreement between the Minister of the Interior and the Provincial Secretary or such other minister of the province as may be specified under the laws thereof.

VISITORS TO NATIONAL PARKS

There was a slight decrease in the number of visitors to the National Parks last year. This represented a falling off in numbers as compared with the previous year of approximately three per cent. The total for 1930-31 was 541,350 persons, as compared with 559,329 persons in 1929-30. The following table shows, by parks, decreases and increases in the numbers of visitors for the two years.

National Park	1930-31	1929-30	National Park	1930-31	1929-30
Banff.....	188,443	217,781	Prince Albert.....	17,164	10,131
Buffalo.....	12,537	18,853	Revelstoke.....	5,000	8,000
Elk Island.....	30,138	22,611	Riding Mountain.....	12,028	.....
Fort Anne.....	18,000	18,000	St. Lawrence Islands.....	15,000	20,000
Fort Beauséjour.....	11,972	.....	Waterton Lakes.....	44,827	48,592
Georgian Bay Islands.....	1,000	.....	Yoho.....	23,291	26,431
Glacier.....	1,000	1,000	Vidal's Point.....	Transferred to Province	17,400
Jasper.....	13,783	15,458			
Kootenay.....	43,125	51,772			
Nemiskam.....	42	100			
Point Pelee.....	104,000	83,200	Totals.....	541,350	559,329

Decrease, 17,979.

THE BIG BEND HIGHWAY

Construction work on the Big Bend highway was continued by the Engineering Service of the National Parks of Canada. This road when completed will connect Revelstoke with Golden and form the last link in the western section of a trans-Canada motor route. The Department of the Interior, through the National Parks Branch, is engaged in building the east leg of the road from Donald, on the main line of the Canadian Pacific Railway eighteen miles west



Pavilion and Camp-Grounds—Point Pelee National Park.

of Golden, to the Canoe river, a distance of eighty-one miles. The west leg of the road from the Canoe river to Revelstoke is being built by the province of British Columbia.

During the period under review twenty-nine miles of new road were constructed and an additional mile opened up and partially completed. A large truss bridge 109½ feet in length with curved upper chord was built over the Bluewater river and a three-span truss bridge with spans of ninety-five feet was constructed over the Bush river. An interesting feature in the bridge work was that the dimension timbers required for the trusses and decks were provided by the sawmill owned and operated for this work by the National Parks Branch where the construction work was carried out. This arrangement meant a great economy of labour and money by obviating the necessity of a long haul from outside mills. The Bluewater River bridge was completed by the middle of June and the Bush River bridge the first week in January. Both bridges provide for a clear wheel-way of seventeen feet three inches and are designed to carry a live load of eighteen tons weight. Several bridges were also constructed with spans varying from fifteen to twenty-four feet in length.

The heaviest grading encountered in building the road was in the vicinity of Bluewater River bridge where the road dropped in elevation some 400 feet along the side-hill in a distance of a mile, and on the other side of the river through wooded slopes where it climbed 410 feet in about the same distance.

Extensive surveying was done during the season. In addition to the usual construction engineering parties, a location party worked to a point three and a half miles north of Middle river, approximately sixty-three miles from Donald. This work was essential as no survey had been made of the proposed road from Mile 40, north of Donald, to the end of the Department of the Interior section. An important revision was made in the vicinity of Bush lakes where two miles of line were eliminated and an easier route chosen than that originally planned.

ROADS, TRAILS, AND TELEPHONE LINES

During 1930-31 there were 449 miles of motor highways, 100 miles of other roads, 2,492 miles of trails, and 1,039 miles of telephone lines under maintenance in the National Parks. The following table shows the mileage by parks:—

National Park	Roads			Trails	Telephone Lines
	Motor	Other	Total		
	(miles)	(miles)	(miles)	(miles)	(miles)
Banff.....	105	18	123	621	197.2
Buffalo.....	1	20	21		35
Elk Island.....	13	2	15		
Glacier.....	9		9	105.5	7
Jasper.....	73	33	106	754.5	353
Kootenay.....	63	8	71	115.5	61.2
Mount Revelstoke.....	19		19	35.5	17
Point Pelee.....	7		7		
Prince Albert.....	39		39	267.7	129
Riding Mountain.....	50		50	200	135
Waterton Lakes.....	20	14	34	222.3	57.1
Yoho.....	50	5	55	170	47.7
Total.....	449	100	549	2,492	1,039.2

UNEMPLOYMENT RELIEF OPERATIONS

Since the coming into force of the Unemployment Relief Act, 1930, large numbers of men, in addition to the regular Parks' crews, have been engaged in programs of work in Banff, Jasper, Waterton Lakes, Prince Albert, and Riding Mountain National Parks. The following table shows the number of individuals employed, the man-days worked, and the average number of days per worker in four of the parks:—

National Park	Number of men employed	Number of man-days worked	Average number of days per man
Banff.....	242	4,179.9	17.3
Jasper.....	186	4,110	22.1
Waterton Lakes.....	35	511.5	14.6
Riding Mountain.....	346	7,087.7	20.5

The nature of the work undertaken consisted in the main of grading and gravelling streets and roads about the townsites; underbrushing and clearing; constructing new roads, and building and maintaining bridges, wharves, trails, and cabins. In Prince Albert Park, crews of men, acting under the supervision of the Park Superintendent, were employed by the provincial Government in clearing deadfall and debris along the main highway 160 feet on each side of the road for a distance of thirty-four miles; and in clearing seventy-seven miles of the boundary to a width of twenty feet.

PRESERVATION OF WILD LIFE

There has been a gratifying increase of wild life in the National Parks. Native species have re-established their numbers, and in no case is this more noticeable than among the bighorn sheep which now range the mountain parks in thousands. In all the national wild life sanctuaries patrols are systematically carried out and the protective regulations strictly enforced. The National Parks are recognized as the wild-life reservoirs of the country.



Young Elk—Riding Mountain National Park.

Government Buffalo Herds.—The Government buffalo herds are in excellent condition. There was very little snow until the end of March and grazing conditions were good, which contributed in no small degree to the satisfactory state of the animals. The main problem now is to keep the numbers of buffalo within the forage limit of the reservations.

A census taken in March, 1931, showed 6,231 buffalo in Buffalo National Park and 863 in Elk Island National Park. With the exception of 70 buffalo and 7 yak carcasses donated by the Government for Eskimo relief purposes, no slaughtering was carried out in the animal parks during the period under review.

Antelope Herd.—The antelope herd at Nemiskam National Park is doing well. Climatic conditions were favourable to the animals, there being but a slight snowfall. Forage conditions were good and the antelope came through the cold season with no loss. In the spring the natural increase was normal. There are now in the herd at Nemiskam, 300 antelope. Coyotes, which are regarded as the chief menace to the antelope, are, as in other parks, less numerous than heretofore.

FIRE PROTECTION

The season of 1930-31 was a particularly hazardous one for forest fires owing to the light snowfall during the winter and a comparatively dry summer. Outlying park areas were patrolled continuously by the wardens, and fire observances

required of tourists and campers strictly enforced. Lookout towers, a good forest telephone system, and up-to-date fire-fighting equipment aided in the location and suppression of forest fires with a minimum of damage.

Fire-fighting equipment now in use in the parks includes 148 portable fire-engines, one heavy duty engine, two auto and five trailer engines, five auto front-end engines, two centrifugal attachments, 9,000 feet of 2½-inch hose and 232,000 feet of 1½-inch hose; five motor boats, nine rowboats, two pack-up boats, six canoes, eight outboard motors; three railway motor speeders, and three railway hand-speeders.

RAILWAY FIRES DURING 1930-31

National Park	Number of fires	Areas burned	Cost of Extinguishing
		Acres	\$ cts.
Banff.....	4	.....	.....
Jasper.....	1	.....	.....
Yoho.....	2	.....	2 00
	7	.....	2 00

GENERAL FIRES DURING 1930-31

Banff.....	46	60.7	2,763 94
Elk Island.....	1	0.3	7 50
Glacier.....	1	242.0	1,470 34
Jasper.....	5	50.0	423 65
Kootenay.....	4	.....	67 25
Mount Revelstoke.....	10	491.0	3,641 40
Prince Albert.....	13	5,119.5	3,812 25
Point Pelee.....	2	506.0	.....
Riding Mountain.....	35	9,751.0	6,763 42
St. Lawrence Islands.....	1	2.5	26 85
Waterton Lakes.....	10	0.5	19 45
Yoho.....	8	6.0	891 55
Totals.....	136	16,229.5	19,887 61
Grand total all fires.....	143	16,229.5	19,889 61

LANDSCAPE AND ARCHITECTURAL WORK

Plans of a large number of buildings proposed to be erected in the various National Parks were examined and, where necessary, drawings, showing suggested revisions to elevations, were prepared with a view to improving the external appearance of buildings without adding to the cost. Comprehensive drawings were made for the development of the residential and business sections in Riding Mountain National Park, as well as drawings of the proposed auto camp grounds. Plans were furnished for the auto camp ground at Jasper townsite; for an extension of the business section of Waskesiu townsite in Prince Albert National Park; and for the development of various historic sites throughout the Dominion.

Detail drawings and specifications were prepared for the following buildings:—

Banff Park.—Registration office, public comfort station, and staff quarters, eastern entrance; new bathhouse, Upper Hot Springs.

Jasper Park.—Several buildings including caretaker's cottage and comfort station at auto camp; blacksmith shop; Royal Canadian Mounted Police garage.

Waterton Lakes Park.—Additions to community building, stores building, and golf club-house.

Elk Island Park.—Garage, caretaker's cabin.

Riding Mountain Park.—Administration building and other new buildings including wardens' cabins.

Point Pelee Park, Georgian Bay Islands Park, and St. Lawrence Islands Park.—Stores buildings.

Fort Chambly.—Museum building.

Standard types of buildings were designed for auto bungalow camps in the various National Parks.

TOURIST INFORMATION BUREAUS

From the first of May to the middle of September, tourist information bureaus were maintained in Banff and Waterton Lakes National Parks for the convenience of visitors. The services afforded included the mapping of routes for motorists and the distribution of informative publications relative to the parks. The information bureau at Banff was made use of by 12,309 visitors; that at Waterton Lakes by 2,608.

PUBLICITY

The Publicity Division continued to direct the attention of recreation seekers throughout the world to the great advantages of a holiday spent in Canada's national playgrounds. The great beauty of scenery, the interesting wild life, and the health-giving qualities of the parks were strongly emphasized. During the year, motion pictures of merit were taken in the parks of beaver and other forms of wild life, showing the results of the Government's policy of wild life protection. The publicity campaign was carried on by the use of high grade and unique motion picture films, lectures, radio broadcasts, illustrated newspaper stories, magazine articles, and booklets.

During the year, 232 lectures were delivered; motion picture films shown totalled 3,115; motion picture films loaned, 591; prepared articles sent out, 197; framed pictures loaned for exhibition purposes, 741; enlarged photographs distributed, 808; lantern slides loaned, 4,939; photographic prints distributed, 12,259; prepared lantern slide sets loaned, 97; half-tone cuts loaned, 383.

To meet the demand for publications, 228,925 copies of different pamphlets were printed. These included:—

First edition—*Jasper Trails*, 25,200.

Reprints—*Banff, Kootenay and Yoho Parks*, 50,000; *Prince Albert National Park*, 25,000; *Waterton Lakes National Park*, 25,225; *Livery Tariff, Banff National Park*, 5,000; *Livery Tariff, Jasper National Park*, 5,000; *Livery Tariff, Waterton Lakes National Park*, 5,000; *Livery Tariff, Yoho National Park*, 5,000; *Waterton Lakes National Park Pocket Guide*, 50,050; *Guide to Fort Anne*, 25,450; *Guide to Fort Lennox*, 8,000.

Of the above publications 213,105 copies were distributed.

REVENUE

Direct revenue collected by the National Parks of Canada for the fiscal year ending March 31, 1931, was \$221,916.64.

BANFF NATIONAL PARK

Banff National Park had a successful year. Tourist travel remained at a high level, the total number of cars eastbound and westbound being 80,976, with 163,443 occupants. Of the passengers entering the park by the eastern gateway 124,766 were from Canada and 6,746 from the United States. The grand total of visitors to the park by motor and rail was 188,443.

Tunnel Mountain motor campsite was, as usual, popular with the travelling public. During the season 5,985 cars and 21,636 persons were accommodated on the grounds. The Government Hot Springs were made use of by 90,214 people. Records at the Cave and Basin bathing house showed 54,391 visitors; at the Upper Hot Springs, 35,823. The number of registered visitors to the Cave, adjacent to the Hot Springs, was 45,165.

Museum, Zoo, and Animal Paddocks.—The Banff museum was a centre of attraction for visitors interested in the study of specimens appertaining to the wild life of the region, geological formations, and relics of early Indian days. Approximately 14,000 visitors registered at the museum during the year. The Banff zoo also attracted thousands of tourists. Animals and birds on display include: 1 polar bear, 2 grizzly bear, 1 black bear, 1 cinnamon bear, 1 mountain lion, 1 Canada lynx, 1 bobcat, 1 timber wolf, 4 coyote, 1 badger, 3 marten, 3 porcupine, 1 ermine, 1 muskrat, 3 great horned owl, 2 golden eagle, 1 crow and 4 Canada geese. The exhibition herds at the paddocks were in good condition. These comprised 15 buffalo, 28 elk, 2 Angora goat, 8 bighorn sheep, 6 four-horned sheep, 5 Rocky Mountain goat, and 6 yak.

Permits and Licences.—Permits and licences issued during the year totalled 17,819. Of this number 16,043 were motor licences for transients. Motor licences for park residents numbered 560; chauffeur licences, 250; guide licences, 62; auto livery licences, 121; hotel and rooming house licences, 100; restaurant and tea room licences, 37.

Fires.—During the season there were reported four railway fires and forty-six fires of a general nature. These fires covered an area of 60 $\frac{3}{4}$ acres and were extinguished at a total cost of \$2,763.94.

Roads.—The roads in and about Banff and throughout the park were maintained in excellent condition. During the tourist season oil was used in laying the dust.

Trails.—New trails were constructed from Shadow lake to Ball pass, a distance of five miles; and from the mouth of the north fork of the Saskatchewan river upstream a distance of twenty miles.

Cabins.—Two new wardens' cabins (No. 2 type) were constructed at the following points: At the mouth of the Alexandra river, and at Clearwater lake.

Forest Telephone Lines.—New telephone lines were constructed from Bow pass to the Saskatchewan river, a distance of twenty-five miles; from Scotch camp to Ya-ha-Tinda ranch, a distance of sixteen miles.

Wild Life.—Wild life in Banff Park is on the increase and the animals appear well nourished and healthy. There are estimated to be in the park 250 bear (grizzly, brown, and black), 150 moose, 3,000 mule deer, 2,000 Rocky Mountain goat, 4,000 bighorn sheep, 1,500 elk, and numbers of lynx, marten, mink, and muskrat.

Public Health.—Few cases of sickness were reported in Banff last year. Every precaution was taken to ensure healthy living conditions. Sanitary meas-

ures were strictly observed relating to the collection and disposition of garbage. Samples of milk and water were periodically tested. The dairy herds were subjected to the intradermal test for tuberculosis and found to be absolutely free from any signs of disease.

Sports.—The Annual Indian Days' pageant and sports were held from July 22 to 25, and were well attended.

The activities of the Mount Norquay Ski Club, which were started Christmas week, provided much enjoyment to members and visiting winter tourists. The winter carnival, held during the week February 7-14, was well attended. The events participated in were racing, swimming, and diving, hockey matches, sleighing, skiing, tobogganing, ski-joring, trap-shooting, and dancing.

JASPER NATIONAL PARK

Jasper National Park of recent years has become very popular with tourists who combine a love for the sublime in mountain scenery with a liking for the amenities of social life. During the season the total number of visitors registered in the park was 13,783. Many of these were accommodated at the Jasper Park Lodge, which during the year was enlarged to house 650 guests. The golf links—among the finest on the continent—were well maintained and proved a great attraction. The annual Jasper Park Lodge Totem Pole Tournament was held in September. Over 200 golfers took part in the event.



Mount Unwin from Maligne Lake—Jasper National Park.

Extensive improvements were made in Jasper townsite. The boulevards and grounds were improved and a great deal of transplanting successfully undertaken. The streets were graded and gravelled and kept free from dust by the application of oil. Many new sidewalks were constructed, the electric and water services enlarged, and the sewerage system extended.

New Buildings.—Several buildings were constructed in Jasper during the year. These included 3 residences, 1 store, 1 filling station, and a number of garages, small buildings, and extensions. In addition to these buildings, construction work at outside points in the park included: 1 store-house near Jasper Park Lodge; 1 bungalow and 3 garages at lake Edith; 1 garage at Pyramid lake; and a bungalow extension at Trefoil lake.

Roads and Bridges.—The Maligne highway from Mile 3 to Mile 9 was, where necessary, widened and gravelled and kept in a good state of repair throughout the season. At the Athabaska bridge the eastern approach was widened by the removal of approximately 118 cubic yards of rock from the face of Old Fort point. A new road of standard width was built and gravelled from the Maligne Canyon road to the beach at lake Annette. The Edith Cavell road was widened at several points along the flats, and guard-rails erected at the south approach to Miette River bridge. Repairs were made to the Pyramid Lake road. At the lake itself a log crib was constructed to withstand the encroachments of water, which threatened to undermine the beach and trees along the drive.

The Medicine Lake and Athabaska Falls tote roads were graded and gravelled where necessary. The Medicine Lake road is used increasingly by cars from Jasper bearing parties to Medicine lake, the point at which visitors leave the motor cars for ponies on expeditions to the wonderful Maligne Lake district.

Trails.—The Rocky River trail was continued from Mile 36 to the trail at the Southesk river at Mile 53. A new trail was constructed from the Athabaska river to the Miette River bridge and continued to meet the Whistler Mountain trail. Trails were also constructed from Jasper Park Lodge to the east of lake Mildred down to the river flats, and to Old Fort point, providing better approaches for saddle ponies. A substantial trail bridge was built across the Southesk river in the extreme southeast portion of the park. There are now 415½ miles of standard trails in Jasper park, 242 miles of pack or second class trails, and 97 miles of Indian trails.

Forest Telephone Lines.—A new telephone line was constructed from Mile 15 on the Rocky River trail to Rocky Forks cabin, a distance of 13 miles.

Sanitation.—The drainage system was extended and the routine of garbage collection, cleaning of lanes, and other sanitary measures continued.

Fires.—There were no town fires and only one railway fire during the season. Five general fires in the park were extinguished at a cost of \$423.65.

Wild Life.—All species of wild life were in excellent condition, owing to the good weather conditions during the winter.

Elk are increasing rapidly in numbers. The largest herds range between Pyramid mountain and Cabin creek, and many frequent the Athabaska and Miette valleys. From fifty to eighty of these animals may be seen nightly about the golf course of Jasper Park Lodge. The number of elk now in the reservation is placed at 3,500.

Bighorn sheep are becoming more numerous and may be seen on practically all the ranges in the Athabaska valley. Throughout the park they are spreading to wherever they can find suitable feeding grounds. There are now approximately 22,000 sheep in the park.

Rocky Mountain goat are plentiful and are spreading to the more remote parts of the park. The largest herds range about the shale banks on the Snake Indian river, Smoky river, Cabin range, Whistler mountain, and Maligne lake. There are estimated to be at least 7,000 goat in the park.

Black, cinnamon, and grizzly bear are increasing rapidly, especially in the Snake Indian, Moose Horn, and Rocky River valleys. The Supervising Game Warden places their number at 4,000.

Moose have noticeably increased during recent years. The animals are in splendid condition and may be seen in most of the valleys in the park. The largest numbers appear in the Snake Indian, Moose Horn, Rocky River, and Brazeau valleys. There are at least 10,000 moose in the reservation.

Deer are very numerous and appear in every valley in the park. They have shown a marked increase, and are in fine condition. It is estimated they now number 22,000.

Caribou are steadily increasing in number and are in good condition. The main herds range along the northern boundary of the park about Byng pass, Twin Tree lake, and in the Tonquin Circus, Smoky River, and Brazeau valleys. Many are also seen in the Snaring and Miette valleys. There are about 10,000 of these animals in the park.

Beaver, marten, and lynx are increasing in numbers. Many new beaver houses and dams were noticed on creeks and lakes which had been abandoned by these animals years ago.

Conventions.—Several conventions were held in Jasper Park during the year. Notable among these was the meeting of the Alpine Club of Canada, which held its summer camp at Maligne lake with 160 members in attendance. The Masonic Grand Lodge of Alberta; the Sun Life Assurance Company, with 400 delegates from the United States and 450 from Canada; the Alberta Law Society; and several financial companies held their conventions at Jasper. The Ministers of Education and their deputies from the western provinces also met at Jasper Park Lodge to consider educational matters.

Sports.—The fishing was particularly good. Fine catches were reported from Jacques lake, Buffalo prairie, Caledonia lake, and Brazeau river. The speckled trout placed in Maligne lake are doing well. A specimen caught in the fall measured 17 inches in length and weighed $2\frac{1}{2}$ pounds. A further lot of 250,000 speckled trout fry was placed in Maligne lake. This makes a total of 750,000 trout fry placed in these waters during 1928, 1929, and 1930. A satisfactory improvement in trout fishing in Cabin lake is expected as a result of the distribution of 50,000 rainbow trout fry in this lake last year.

Trail riding was extremely popular with visitors during the season. One of the most delightful trail journeys taken was that to Maligne lake via Maligne canyon and Medicine lake. Another popular objective to trail riders was the Tonquin valley, which is reached by way of the Cavell road to Portal creek, along Portal creek and valley and over Maccarib pass. Outstanding places of interest along this route are Amethyst lake, The Ramparts, Moat lake, and mount Geikie.

WATERTON LAKES NATIONAL PARK

The weather was ideal for tourists and Waterton Lakes National Park again had a successful year. The total number of registered visitors was 44,827. Of these 33,555 were from Canada, and 11,235 from the United States. The number of motor cars entering the park was 11,478.

Improvements were made in the townsite by laying out attractive flower beds, and grading, gravelling, and oiling the streets. All the sidewalks were conditioned, and extensions were made from the Anglican church to the Roman Catholic church, and from the police barracks to the camp-site.

New Buildings.—Fifteen new buildings were erected by residents. Construction work on the Roman Catholic church was completed.

Sports.—The golf links, tennis courts, and bathing beaches were well patronized during the season. The fairways and greens of the golf course were in splendid condition and accommodated a larger number of players than last season. There was also an increase in the number of people making use of the tennis courts. At Linnet lake the bathing beach was improved, and a boom of logs thrown across the lower end of the lake for the convenience and safety of non-swimmers and juveniles.

Fishing proved one of the favoured pastimes. Many good catches were made in the lakes and streams, especially in Pass creek, Cameron creek, Belly river, Cameron lake, and Waterton lake. Trout fry to the number of 260,000 were placed in the following streams: Lee creek, 25,000; Tough creek, 25,000; Dungarvon creek, 20,000; Cottonwood creek, 20,000; Sofa creek, 10,000; Pass creek and tributaries, 54,000; Boundary creek, 16,000; Galway creek, 10,000; Belly river and tributaries, 40,000; Indian creek, 10,000; and Cameron lake, 30,000.



Waterton Townsite from Bertha Trail—Waterton Lakes National Park.

Roads and Bridges.—Work was continued on the Akamina highway. The road was widened at different points and kept in a good state of repair. The Pass Creek road was widened and graded as far as the upper bridge, and in places relocated. A sharp bend near the Fish Hatchery was straightened out, and a new bridge constructed across Spring creek. All culverts and ditches were cleaned and repaired. During the season the roads leading into Waterton Lakes Park were maintained in good condition.

An important engineering work was the construction of a new bridge over the Waterton river on the main entrance road of the park to replace the old pile

trestle bridge built in 1916. The total length of the new bridge is 342 feet. It consists of three wooden Howe truss spans, each 109 feet 6 inches long, supported by two concrete piers and two concrete abutments. Maintenance work on the other bridges in the park was continued.

Telephone Lines.—Telephone lines were maintained in good working order. One new line was constructed from Little Prairie to Cameron Cabin.

Trails.—The trails throughout the park were well kept. The Carthew trail—one of the most beautiful in the park—was completed. Work was also done on the Bertha, Lakeshore, Pass Creek, and Cameron trails. A pony trail was constructed from headquarters to the townsite for the convenience of equestrians.

Fires.—Eight fires of a general nature were reported during the season, all of which were quickly controlled.

Wild Life.—Wild life of all kinds appeared in good condition and on the increase. Mule deer, beaver, rabbit, and coyote were seen in large numbers about the park. There was a noticeable increase in mountain goat, while elk and bighorn sheep remained about the same. Whitetail deer, moose, marten, lynx, and fox were scarce.

YOHO NATIONAL PARK

The number of visitors to Yoho National Park assumed gratifying proportions during the season. Weather conditions were particularly suitable to tourists during the summer, owing to dry weather, the absence of fires, and the good condition of roads and trails. Eastbound and westbound motor cars totalled 7,485, carrying 23,291 persons. The heaviest traffic to the park was from the east, entries by the Kicking Horse pass showing 4,724 cars and 14,850 persons. Of these 3,721 cars were Canadian and 1,003 foreign. Eastbound cars totalled 2,761; 2,404 Canadian and 357 foreign.



Natural Bridge at Field—Yoho National Park.

Improvement work was started in April. The townsite of Field was thoroughly renovated, trees pruned, sidewalks repaired, and streets graded. Construction work on the Park Superintendent's residence was continued. Two private residences and several garages were erected, and construction work started on a combined garage and stores building.

The campsites throughout the park were maintained and improved. At the Kicking Horse campsite another half-acre was cleared, to extend accommodation, and all shelters were put in good order and repainted. Registrations at this campground showed 1,245 cars and 3,774 people. The camps on the roads to the Yoho valley and to Emerald lake and those at Field and Chancellor peak were made use of by a large number of tourists.

Roads.—The main and subsidiary roads were kept in an excellent state of repair. A number of permanent improvements were made on the main highway from Stephen to the west gateway near Leancoil. These consisted of reducing the curvature at numerous points, widening a $2\frac{1}{2}$ -mile section of the road near Misko, and building additional guard-rail. The whole highway was kept graded and oiled during the season. On the Yoho road, widening and grading work was done and the bridge at Mileage $4\frac{1}{2}$ was renewed. At the Switchback, the road was conditioned and new guard-rail built. The Emerald Lake road was widened in places and the Ottertail road improved. No serious accidents were reported during the season. The roads were regularly patrolled by the Royal Canadian Mounted Police.

Trails.—A new trail was located which will, when completed, be one of the outstanding scenic routes in the park. The way will lie between the Wapta bungalow camp and the Yoho camp. The trail will wind a distance of ten miles by Sherbrooke lake and creek to the summit, and thence over into Yoho valley, crossing the Yoho river at a point near Takakkaw falls. A great deal of work was done on the Ottertail trail, improving the old trail and making a diversion to eliminate a faulty section which necessitated a great deal of climbing. In the Yoho valley at the foot of Takakkaw falls a bridge of the cantilever type resting on concrete piers was constructed over the Yoho river. All trails throughout the park were cleared and maintained in good condition.

Wild Life.—Wild life in the park appears in splendid condition and is on the increase.

Sports.—Fishing in the lakes and streams was better than ever before. Many good catches were reported, particularly from lakes Wapta and O'Hara. Rainbow trout fry to the number of 40,000 were distributed in the following waters:—Emerald lake, 10,000; Kendel creek, 5,000; Ross lake, 5,000; lake O'Hara 10,000; Cataract creek, 10,000.

Fires.—Eight general fires and two railway fires occurred during the year, burning over an area of about six acres. The damage done was small. The total cost of extinguishing the fires was \$891.55.

GLACIER NATIONAL PARK

The year just concluded was a quiet one at Glacier National Park. Registrations showed 1,000 visitors. Travel to this area was restricted owing to the lack of tourist accommodation. No new hotel has as yet been erected to replace the old Canadian Pacific Railway hostelry at Glacier, which had been dismantled.

Roads.—Work was begun early on the roads, cleaning up the debris deposited by snowslides. The road from Glacier station to the site of the old hotel was cleared and repaired, as were the roads to Roger's pass and the Nakimu caves. All trails throughout the park were put in good condition. On the

Beaver River trail a diversion of four miles was constructed to avoid swampy, low-lying land. Repairs were also made to the Grizzly Creek and Caribou trails.

Nakimu Caves.—A great deal of repair work was done in the caves. Wooden stairways and platforms were renewed. Wherever possible the woodwork was replaced with concrete, and iron railings substituted for wooden ones. During the season over 300 visitors registered at the caves.

Wild Life.—Wild life in the park included caribou, deer, Rocky Mountain goat, and bear.

Fires.—There were no railway fires during the year and only one bush fire. This was caused by lightning striking high up on the mountain near the headwaters of Grizzly creek. A large area was burned over. The total cost of extinguishing the fire was \$1,470.34.

KOOTENAY NATIONAL PARK

Kootenay National Park was opened to tourists on May 15, and a good year was reported. A slight decrease in travel from the Prairie Provinces and the United States was attributable to the widespread business depression. During the season 14,299 cars carrying a total of 43,125 passengers, registered in the park. Of the visitors 32,366 were from Canada, and 10,759 from the United States.

The Sinclair Radium Hot Springs were popular with visitors. During the season 22,094 bathers made use of the baths. Two new double bungalow cabins were erected by the Canadian Pacific Railway Company on their property at Radium Hot Springs. A new warden's cabin was built, a septic tank and chlorinating system installed at the townsite, and construction work on the Gateway hotel and on the Superintendent's residence, completed.

Roads and Trails.—The highway was maintained in excellent condition. The road was oiled, considerable widening done, and hub rails constructed at points along the embankments. The trail up Hawk creek to Ball pass was completed, also the trail leading from Floe lake to the Wolverine Pass trail. These trails provide a direct route from Banff to Yoho National Park, and open up some of the loveliest scenery in the region. A new trail was constructed from the highway at the mouth of Numa creek to the head of the creek, meeting the trail from Floe lake to Wolverine pass. A new bridge was constructed across the Vermilion river.

Campsites.—The campsites were repaired and kept in good condition. At Sinclair canyon the campground was taxed to capacity during the season.

Fires.—The season was a good one as regards freedom from fires, only four outbreaks being reported. All of these were extinguished before spreading at a total cost of \$67.25.

Wild Life.—All species of wild life are on the increase. Many moose and elk ranged about the Kootenay valley. Moose, elk, and mule deer, Rocky Mountain goat, bighorn sheep, and bear were numerous in the park. The smaller fur-bearing animals, such as beaver, marten, mink, lynx, and coyote were plentiful.

REVELSTOKE NATIONAL PARK

Travel to Revelstoke National Park was about the same as the previous year. Approximately 5,000 tourists visited the reservation during the season. It is anticipated that with the completion of the Big Bend highway from Golden to Revelstoke there will be a marked increase in the number of visitors to this unique mountain-top park. The campsite at Balsam lake was made use of

during the season by a large number of motor tourists. The grounds were improved and an additional shelter erected and equipped with cook-stove, tables, and benches.

Roads and Trails.—Work was begun on the lower slopes of Mount Revelstoke highway the last week in April. As the snows receded the road was repaired and put in good condition. Early in July the road to the Summit was open for traffic. Between Mile-post 1 and Mile-post 12 the road at points was widened and the curves moderated. All ditches and culverts were cleaned out and repaired. The branch road from the main highway to Balsam Lake camp was surfaced and put in good shape.

New trails constructed during the year were extensions of the Clach-na-Cuddin trail and the Two-mile Cabin fire trail. Repairs and improvements were made to the Lindmark trail and to the trail from the Summit to Eva and Millar lakes. The sectionmen's cabins at Miles 4, 6, 8, 10, and 14 were repaired, and the runway at the foot of the big jump on the ski hill improved. Observation points near the big jump were constructed for the convenience of spectators. The annual ski tournament was held in February and was well attended.

Fires.—Ten general fires were reported in the park during the year. The most serious of these outbreaks occurred on the Clach-na-Cuddin range in heavy timber. The fire burned over approximately 400 acres of land. The cost of extinguishing the ten fires was \$3,641.40.

PRINCE ALBERT NATIONAL PARK

Prince Albert National Park is rapidly increasing in popularity as a summer resort. During the season the reservation was visited by 17,164 people, the majority of whom were campers. The first Boy Scout jamboree for Saskatchewan was held in the park with over 600 Boy Scouts present from all parts of the province. His Honour the Lieutenant Governor of Saskatchewan and Miss Newlands were in camp while the convention was in progress.

Building.—Building operations were extensive during the year. A new administration building was constructed and a filling station and an incinerator built. In addition to these, six kitchens and a caretaker's cabin were constructed on the campground. The Royal Canadian Mounted Police barracks were practically completed. Five new cabins were erected and a kitchen provided at Halkett Lake campground. Other construction work included improvements to the new tennis court, a breakwater 370 feet in length, a light railway across Hanging Heart Lake portage, and another along Kingsmere river. A transmission line and distributing system for the electric light plant were completed. Building activities were started on six of the lots taken up during the season.

Campsites.—Careful supervision of all campsites was made and the areas kept in a clean and sanitary condition. Twenty-five acres of land were cleared and drained at Waskesiu lake with a view to extending the camp area. Extensions were also made to the Halkett Lake and Kingsmere Lake campgrounds. The erection of open-air kitchens and other camping conveniences has proved a pleasing factor in camp life.

Roads.—The road from the southern boundary of the park to Waskesiu lake was gravelled and maintained in good condition throughout the season. Five and a half miles of the road to the Narrows were graded, and further clearing and underbrushing done. This road when completed will open up some of the most attractive portions of Waskesiu lake. The highway between Prince Albert and the park was gravelled throughout its length by the provincial authorities, thus providing an all-weather motor route connecting Waskesiu lake with the main highways of the province.

Telephone Lines.—New telephone lines were constructed from Waskesiu lake to Crean and Kingsmere lakes, and from Meridian cabin to Rabbit cabin. All other lines in the park were repaired and maintained in good working condition.

Permits and Licences.—During the year 107 permits, licences, and agreements to lease, were issued. These included:—

Permits: 35 timber, 3 building, 18 hay.

Agreements to lease: 15 business lots, 9 residential lots, 2 livery lots.

Licences: 14 chauffeur, 8 boatman, 3 boat livery.



Sunset on Waskesiu Lake—Prince Albert National Park.

Fires.—The season was dry and the wardens kept a sharp look-out for fires. Thirteen outbreaks in all occurred, burning over an area of 5,119½ acres. The total cost of fighting fire was \$3,812.25. The largest fire, which occurred in the northwest portion of the park about Lavallee lake, started outside the boundary. With the co-operation of the Department of National Defence, whose planes are located at Big River, the fire was brought under control before it had done any great damage. Fire protection work in the park was greatly facilitated by the use of the Meridian-Rabbit trail, which was maintained in good condition throughout its entire length to permit motor transportation of men and fire-fighting equipment. A large amount of work was done on other fire trails throughout the park.

Wild Life.—There was a noticeable increase in wild life in the park including moose, deer, elk, caribou and bear. In addition to these the smaller fur-bearing animals are plentiful. Birds, particularly waterfowl, are numerous.

Special study of park waters was continued with a view to ascertaining game fish possibilities. Recommendations of the Biological Board of Canada,

through whose assistance the investigations were made, include the introduction of the Kamloops trout into Kingsmere lake and speckled trout in the MacLennan river. Special study was made of the waters of Waskesiu lake (with comparative data of Crean and Kingsmere lakes) and of Lavallee, Tibiska, and Wassegam lakes, and their tributary streams in the northern part of the park.

RIDING MOUNTAIN NATIONAL PARK

During the season 6,000 cars and 12,028 visitors were registered at Riding Mountain National Park.

This delightful recreational area and wild life sanctuary in Manitoba which became part of the system of Canada's National Parks in 1930, proved very popular with the public. The park, which was formerly the Riding Mountain Forest Reserve, covers an area of 1,148 square miles. It presents a typical example of Manitoba's mountain country. Rough, broken terraces on the east rise to a wide, wooded tableland, set with beautiful little lakes. The terrain then slopes gently on the west in broad steps to the Assiniboine. The eastern part of the park particularly is well wooded with poplar, birch, spruce, balsam, and jack pine. Towards the west the forest thins out and green glades appear, where wild flowers grow in luxurious profusion. In places eastern hardwoods, such as oak and elm, may also be found.



Canoeing on Clear Lake—Riding Mountain National Park.

The lakes undoubtedly form one of the chief attractions of the park. Their spring-fed waters are clear and pure like true mountain lakes, and their colours possess the same jewel-like brilliance.

The park is accessible by motor highway from all parts of the province and is within easy reach of both the transcontinental railway lines. The distance from Winnipeg is approximately 175 miles. The approach is by way of Dauphin

on the north and by Brandon, Neepawa, and Minnedosa on the south. A new motor highway, being constructed by the Department from Clear lake to Norgate Station, a distance of approximately twenty miles, ties up with a good road running north and south along the east boundary of the park, thus connecting with the provincial road system.

To accommodate the large number of campers at Clear lake—where the townsite is located—an area of five acres was cleared, a new kitchen shelter built, and other improvements made. In addition in the townsite two new wells were sunk and three wells conditioned. Work was continued on the extension to the golf course at the east end of Clear lake.

Road Construction.—Road construction included the work on the Norgate-Clear Lake highway, the regrading of the greater portion of the Lake Audy-Strathclair road, and the gravelling of eighteen miles of the same.

Subdivisions.—The subdivisions of the townsite are being redesigned. There are at present on the subdivisions ninety cottages of various types and designs. Many improvements were made by cottagers to their bungalows..

Permits.—Thirty-two permits were issued covering the grazing of 451 head of cattle and 45 horses. In addition to these, 103 permits were granted for the cutting of 1,371 tons of hay.

Fires.—The season was a bad one in respect to fires. In all thirty-five outbreaks occurred, covering an area of 9,751 acres. The total cost of fire-fighting was \$6,763.43.

Unemployment Relief.—Four relief camps were established in the park for the purpose of carrying on unemployment relief work. In all 346 individuals were employed. The number of days worked was 7,087.7, an average of 20.5 days per man. Every town and municipality surrounding the reservation was represented in the working force. Work done included continuation of construction on the Norgate-Clear Lake road, underbrushing on Clear Lake townsite, right-of-way cutting on the Norgate road, survey and right-of-way cutting of the Dauphin-Clear Lake road.

Wild Life.—The Superintendent of the park estimates there are in the reservation, 2,000 elk, 500 moose, 600 deer, 250 bear, and many muskrat and mink.

Bird life is on the increase and prairie chicken and ruffed grouse are numerous. Migratory birds rest on the waters of the park in large numbers, and some of them stay to nest. Of particular interest last season was the large number of mountain bluebirds which nested in the vicinity of the golf course at the east end of Clear lake.

BUFFALO NATIONAL PARK

Grazing conditions in the park were excellent. There was very little snow until the month of March and all the animals came through the winter in the best of condition. The following table shows the animals in the park on March 31, 1931.—

Buffalo	6,231	Antelope	1
Elk	766	Yak	26
Moose	76	Hybrid stock	23
Mule deer	2,172	Domestic cattle	11

The usual operations were carried on about the farm. Approximately 500 acres were seeded down to oats and 100 acres to grass. Owing to bad weather conditions the crops were small. Some 2,200 bushels of grain and 150 tons of green feed were harvested. The hay crop yielded 828 tons of which 794 tons were from the Ribstone meadow and 34 tons from the Home Paddock enclosure.

Fencing.—Approximately 100 miles of fence were repaired. A change was made in the location of the fence on the west boundary to include the south half

of section 30, township 43, range 8, and the south half of section 25, township 43, range 9, both west of the Fourth Meridian. This alteration provides additional pasturage and access for the animals to a supply of good spring water. A new gateway, consisting of square stone pillars with cement caps and two strongly built iron gates, was provided at the Wainwright entrance to the park.

Fire Protection.—A 60-foot tower with a 6,000-gallon tank was installed near the farm buildings. A new water main was laid from the tank to hydrants located at suitable points and 1,000 feet of new hose supplied. Fireguards both inside and outside the main fence and in other parts of the park were ploughed. Most of the work was done by park teams.



Buffalo Fording Shallow Lake--Buffalo National Park.

Roads.—The road from Wainwright to the Home Paddock entrance gate was graded and gravelled. About two miles of the main Wainwright-Hughenden road, which runs through the park hay meadow, were graded. Approximately twenty miles of old prairie trails, which had worn into deep ruts, were improved to accommodate motor cars. Other trails were maintained in good condition including those in the Home Paddock enclosure.

Buildings and Improvements.—A new stable was constructed at Rocky Ford to accommodate riders' horses when on the round-up. The roof of the boarding house at the farm was resingled, and a veranda built on the warden's cottage at Rocky Ford. Repairs were also made to the warden's cottage and teamsters' cabin at the Home Paddock. New wells were bored at the Home Paddock, Ribstone Meadow, and Mott Lake recreation grounds.

Permits.—Dry wood permits were issued to settlers living in the vicinity of the park for 400 cords, also for 3,000 green willow pickets.

Predatory Animals.—There was a marked decrease in the number of coyote in the park. Fifteen of these animals were killed during the year. Only six of the hides were of value, the others being affected with mange.

Visitors.—The total number of visitors during the year was 12,537. Entries recorded at the three gates were as follows: Wainwright gate (Home Paddock), 10,832; Hardisty gate, 1,178; Farm gate, 527.

ELK ISLAND NATIONAL PARK

Visitors to Elk Island National Park totalled 30,138. The weather was ideal for picnickers and tourists who, in addition to viewing with interest the herds of animals in the park, found a wide diversity of entertainment about the bathing beaches and recreation grounds. The animals were in splendid condition and the wardens reported increases in buffalo and moose. There are now in the park 863 buffalo, 400 moose, 467 elk, and 199 deer.

Repair work was carried on as usual. All fences were put in good shape, the corral at the south end of the preserve enlarged, and fireguards conditioned. New fireguards were ploughed as follows: four miles on the east side of the park, and seven miles from the southern boundary to the west of Tawayik lake. There were no serious fires during the year. The season was a good one for hay. Over 400 tons were secured, which, with the supply carried over from the previous year, will provide amply for feeding needs. Nine hundred and fifty bushels of oats were harvested.

Roads and Improvements.—The roads were maintained in good condition throughout the season. Three and a half miles of the road to Astotin lake were reconstructed and improvements made to the Sandy Beach road by widening at points and lessening curves. Grading was done and new culverts constructed on the road north of Tawayik lake. From headquarters to the junction of the Sandy Beach and South End roads, a distance of two miles, was surfaced with gravel. A new cabin was built at the north entrance to the park for the use of the gate-keeper.

Wild Life.—Birds are numerous in the park. Blue heron nested on the islands in large numbers and waterfowl generally showed an increase. Prairie chicken were plentiful and their enemies, the coyote, were reported on the decrease.

GEORGIAN BAY ISLANDS NATIONAL PARK

Georgian Bay Islands National Park, comprising twenty-nine islands in Georgian bay, which were set aside by the Government of Canada in 1929, as a National Park, were visited during the summer months by approximately 1,000 campers and picnickers.

Beausoleil island, the largest of the group, some five square miles in area, was extremely popular with campers. The beautiful groves and bathing beaches of white sand, the varied plant and bird life, and the good fishing in the surrounding waters, are outstanding attractions.

Many improvements were made on the island during the year. Six new campsites were cleared; and rustic shelters with conveniences were provided at Lost bay, and at the Indian village on the shores of Beausoleil bay. Work done also included the building of a fence around the cemetery, and the filling-in with rock of two wharves.

POINT PELEE NATIONAL PARK

A new record in tourist travel was established at Point Pelee National Park. During the season 26,000 cars entered the park, carrying a total of 104,000 passengers. This was an increase over the previous year of 5,200 cars and 20,800 visitors. The number of campers who took out permits for less than a four days' stay was 853. Of these 182 were from Ontario and 671 from the United States. Camping permits for more than four days numbered 142—58 from Ontario and 84 from the United States.

The increasing popularity of this unique area for tourists is easily explained. Situated on the north shore of lake Erie, the reservation—the most southerly mainland point in Canada—may be reached by motor car in from



Flower Pot Island—Georgian Bay Islands National Park.



Cedar Island—St. Lawrence Islands National Park.

one to two hours from Detroit, and from other thickly populated areas both in Ontario and Michigan. The bathing beaches are free and in summer the park is colourful with flowers, and semi-tropical vegetation. Nature has lavishly endowed this resort with features acceptable to picnickers and campers.

Wild Life.—There was a marked increase in wild life during the season. Squirrel, racoon, and rabbit were plentiful while muskrat were in greater numbers than for some years. Quail and ring-necked English pheasant showed a marked increase and during the spring and fall migrations thousands of ducks and geese rested on the lake waters. Many whistling swan were also seen in the marshes during the migratory periods.

ST. LAWRENCE ISLANDS NATIONAL PARK

This unique National Park consisting of thirteen islands and a mainland reservation among the Thousand Islands of the St. Lawrence river, was made use of by some 15,000 people, including a large number of excursion, picnic, and fishing parties.

On most of the islands, attractively designed pavilions have been erected and open-air kitchens and other conveniences supplied. In the most favourable locations wharves and landing places have been built for steamers and other water-craft. In addition to the maintenance of the grounds in good condition, a new bathing house was erected at Mallorytown, Ontario, on the mainland.

FORT ANNE NATIONAL PARK

Fort Anne National Park at Annapolis, Nova Scotia, was visited by large numbers of tourists during the season. This historic site proved a centre of interest to 18,000 people, 13,327 of whom signed their names in the register at the museum. Among the distinguished visitors to the park were Their Excellencies the Governor General and Lady Willingdon; M. Coursier, Charge d'Affaires of the French Legation at Ottawa; and the Abbe Couillard-Depréz, a direct descendant of Louis Hebert, pioneer apothecary of Acadia.

Parties also visiting the site were the teachers and pupils of the Granville public school and from the County Academy; 200 Dominion Atlantic Railway employees; the Canadian Society of Technical Agriculturists; the American Agricultural Editors Association; and the Nova Scotia Pharmaceutical Society.

Several interesting additions were made to the museum and library. Outstanding among these was a tablet unveiled to Louis Hebert by the Abbe Couillard-Depréz. A tablet was also unveiled to commemorate the New England expeditions of 1654 and 1710 against Port Royal. A volume of almanacs dated 1707, a personal memento of Queen Anne, was obtained from the Trustees of the London Museum through the efforts of the Historical Association of Annapolis Royal.

FORT BEAUSEJOUR NATIONAL PARK

This historic area overlooking Chignecto bay in Westmorland county, New Brunswick, which contains the remains of fortifications erected by the French, 1751-1755, to offset the strategic importance of a fort erected by the British at Beaubassin, was visited by 11,972 tourists during the season.

The travelling public evinced a keen interest in this spot associated with early Acadian days where, in 1755, the French and Indian forces capitulated to the heavily armed New England troops under the command of General Robert Monckton. Upon the occupation of the fortress by the British its name was changed to Fort Cumberland, in honour of the Duke of Cumberland, son of King George III.

Improvements to the grounds during the year included widening and grading 600 feet of road from the entrance gate to the parking area; rebuilding the walls of the powder magazine; placing guns on the northeast and northwest bastions; and erecting markers at Butte a Mirande, Portage Hill, and Butte a Charles.

Protection of Migratory Birds

An amendment to the Regulations under the Migratory Birds Convention Act, based upon suggestions from the different provincial officers and the district migratory bird officers, was made last June. The only change affecting all Canada was a minor one in connection with the marking of carcasses of birds of pure wild stock, reared in captivity and sold for food purposes. The following changes were made in the Regulations:—

New Brunswick.—The daily bag limit on ducks was reduced from 25 to 15, and a seasonal bag limit, which was new, of 150 ducks established. Also a minor change respecting restrictions for the use of boxes.

Ontario.—The daily bag limit for ducks was reduced from 25 to 15 and the seasonal bag limit reduced from 200 to 150.

Saskatchewan.—The daily bag limit on Wilson's snipe was reduced from 25 to 15, and a seasonal bag limit of 150 birds, which was new, established. The seasonal bag limit for ducks and geese was reduced from 200 to 150.

Manitoba.—The daily bag limit for ducks, prior to October 1 in any season, was reduced from 20 to 15, and the daily bag limit for ducks for the remainder of the open season was reduced from 40 to 30. The seasonal bag limit for ducks was reduced from 200 to 150 and a seasonal bag limit for geese was established at 50 birds.

British Columbia.—The boundaries of the season zone known as the "Western District" were altered; the season for ducks, geese, brant, and coot in the Provincial Electoral Division of Creston in the Eastern District was made one month shorter; the season for band-tailed pigeon was extended for two weeks; and the use of decoys, except live decoys, in the hunting of band-tailed pigeon was permitted.

The staff enforcing the Migratory Birds Convention Act was maintained at approximately the same strength as during the previous year. One slight change made was the discontinuance of the services of six part-time sanctuary caretakers in Alberta, owing to the control of the sanctuaries having been transferred to the province. In accordance with the original plan, the enforcement of bird protection measures was left largely in the hands of the provincial authorities. Under this arrangement duplication of staff is avoided. The Royal Canadian Mounted Police, Dominion fishery officers, the provincial game officers of many provinces, and some hundreds of honorary game officers co-operated with the Department in enforcing the Migratory Birds Convention Act, and in providing information respecting bird conditions throughout Canada. A staff of officers under the direction of a chief federal migratory bird officer is maintained in the Maritime Provinces for the enforcement of the law.

The usual patrols were made by the Chief Federal Migratory Bird Officer for the Provinces of Ontario and Quebec to inspect the bird sanctuaries on the north shore of the gulf of St. Lawrence, and the work of the sanctuary caretakers and the staff of temporary assistants. This patrol serves to protect especially the sea-bird life of the north shore of the gulf of St. Lawrence.

The Chief Federal Migratory Bird Officer for the Western Provinces in addition to his regular work in co-operating with all conservation agencies in his district made an inspection of sanctuaries on the prairies, and spent some time in scientific work.

The drought which affected the breeding of waterfowl in Western Canada in 1929 continued, and caused a serious reduction in hatch during 1930. The seriousness of the situation was first reported by our officers who had been at work in the Prairie Provinces in the fall of 1929. At that time, many of the sloughs in the important prairie nesting ground for ducks were dry. As soon as it was seen that this drought was continuing in 1930, a special questionnaire was sent to all the waterfowl observers of the Dominion. The seriousness of the situation was made public in Canada and also brought to the attention of the United States game conservation authorities at the meeting of the International Association of Game, Fish and Conservation Commissioners, which was held at Toronto late in August, 1930.

Prosecutions.—In connection with the enforcement of the Act, 71 prosecutions were instituted by Dominion officers and 70 convictions secured.

Oil Pollution.—Regarding the pollution of waters, the Department has continued to advise the Department of Marine respecting reports of losses of bird life caused by oil floating on navigable waters.

Statistics and Censuses.—The Department has continued to co-operate with the United States Biological Survey in gathering statistics, particularly relating to waterfowl. A large number of voluntary observers co-operate with the Department in this connection. Naturalists throughout Canada and in the United States have continued to take Christmas bird censuses, which are valuable in that they place on record the distribution of bird life on the continent at that season.

Permits and Licences.—Permits and licences issued during the year were: for the collection of birds for scientific purposes, 226; possession of birds for propagating purposes, 576; capturing of birds for propagating purposes, 23; destruction of birds when found to be seriously damaging agricultural, fishery, or other products, 128; collection of eider-down, 2; special permits, 5; taking birds for banding purposes, 116; practising taxidermy, 74; shooting of geese and brant in Shelburne, Queens, and Halifax counties, Nova Scotia, in the open season, 911.

Investigations.—The Chief Migratory Bird Officer for the Western Provinces co-operated with the Biological Board of Canada in investigating waterfowl in relation to spawning of herring. The findings of this investigation have been published by the Biological Board. Birds are often blamed for doing serious damage to fisheries. The true relationship and the extent of the damage, if any, caused in such cases can only be determined by painstaking scientific investigation.

The Chief Migratory Bird Officer for Ontario and Quebec is studying the possibilities of the area included in the Pre-Cambrian Shield as a breeding ground for waterfowl. It becomes necessary to know, in view of the increasing invasion of the very important prairie nesting grounds by agriculture, whether conditions in areas such as those included in the Pre-Cambrian Shield are suitable for duck breeding. In addition, this officer prepared, and the Department distributed, a report on the relation of Canada geese and brant to commercial gathering of eel-grass in the St. Lawrence estuary. He also presented a progress report on the bird sanctuaries of the north shore of the gulf of St. Lawrence during the past five years.

Bird Banding.—The study of bird migration through the ringing or banding method was continued. The Department worked in close co-operation with the United States Biological Survey in this investigation. In this work—through the co-operation of persons interested in this study, as well as provincial game

departments—migration routes, details of life histories, and other vital statistics of bird life are being secured. Some species of birds are of very great economic importance, and the voluntary workers who conduct bird banding observations are contributing in no small measure to the advance of bird conservation. Records received during the year 1930 numbered 18,654, exceeding by 2,020 those of the previous year.

Bird Sanctuaries and Public Shooting Grounds.—The bird sanctuaries in Manitoba, Saskatchewan, and Alberta, which were on Crown lands, and all public shooting grounds in these three provinces were transferred to the respective provinces under the various Acts for the transfer of natural resources. As shown in the extracts from these Acts in the introduction to this report, responsibility is now on these provinces to continue and preserve bird sanctuaries and public shooting grounds as such.

Bird sanctuaries were established during the year at the Central Experimental Farm, Ottawa (an extension of the existing sanctuary); and at St. Andrews East, Quebec. General interest has also been shown in the establishment of small sanctuaries throughout Canada.

Co-operation with the Department of National Defence.—The attention of the Department of National Defence was called to the danger to wild life caused by aircraft. As a result, circular letters were sent to all air pilots, aircraft operators, airport owners, light aeroplane clubs, inspectors, and stations throughout Canada urging their co-operation with provincial and Dominion officers to see that game law violations do not occur.

Educational.—Officers of the Department attended camps for young people and gave instructions in bird protection and general natural history. Departmental distribution of pamphlets during the year amounted to 68,506. To acquaint the public with the shooting seasons and related bird protection information, 45,691 posters, 21,975 copies of the Act, and 23,458 abstracts of the Act and Regulations were distributed. Following the change in the Regulations, circular letters were distributed to the press throughout Canada, and these received wide publicity and editorial comment. Generally the press and the public are strongly in favour of bird protection.

Radio stations throughout Canada co-operated in making known to the public changes in the hunting seasons. With children, bird-house competitions continued to be popular.

Lectures.—There was as usual a great demand for lectures on bird protection subjects. Many of these were delivered by officers of the Department. In other cases lantern slides were furnished and assistance given to private lecturers. Slides lent free of charge to lecturers numbered 5,054.

Game Conferences.—The biennial conference of provincial and Dominion game officers was held at Ottawa during August. Conservation subjects were discussed and several resolutions adopted to aid provincial and Dominion game administrations in working along uniform lines. The conference was called in advance of the 24th annual meeting of the International Association of Game, Fish and Conservation Commissioners, at Toronto, thus all provinces represented at the game conference were able to attend the meeting of the International Association where discussions covered the wider field of North American game conservation.

During the year the Department was represented at the following other national and international meetings which dealt with scientific and conservation questions: the Forty-Eighth Stated Meeting of the American Ornithologists' Union at Salem, Massachusetts, October, 1930; the Seventeenth National Game Conference, held under the auspices of the American Game Protective Asso-

ciation, New York, N.Y., December, 1930; a joint meeting of the Northeastern Bird Banding Association and the Federation of Bird Clubs of New England, at Boston, Massachusetts, January, 1931.

The departmental representative at the meeting of the American Ornithologists' Union conveyed an invitation from the Provencher Society of Natural History, Quebec, and from the Department of Colonization, Game and Fisheries, Province of Quebec, asking that the Union meet in Quebec city at an early date. The invitations were accepted and the 50th Stated Meeting of the American Ornithologists' Union will be held in the city of Quebec in the fall of 1932.

Historic Sites and Monuments

The close of the fiscal year shows good progress made by the Department of the Interior in erecting suitable memorials to mark national historic sites and to commemorate the public services of outstanding personages associated with the early history of Canada. These sites were recommended for attention by the Historic Sites and Monuments Board of Canada, which acts in an advisory capacity to the Department in this work.



Site of Wolfe's Landing, Kennington Cove, Nova Scotia.

A notable development in connection with historic sites is that of tourist travel. Visitors in greater numbers than ever before had as their objective the landmarks which are being preserved to perpetuate the memory of important events which have influenced the course of Canada's growth as a nation.

Sites Marked

During 1930-31 the following memorials were erected:—

First Atlantic Cable, North Sydney, N.S.—A bronze tablet was affixed to the outer wall of the Cable Building, to commemorate the laying of the first American section of the Atlantic submarine telegraph cable laid in 1856,

St. Anne, Englishtown, N.S.—A rubble stone cairn with tablet was erected on a plot of land donated by Mr. George E. Fader, adjacent to the Baddeck-Cape North highway, to commemorate the events associated with that place, which was settled in 1629 by Captain Charles Daniel and later became an early Jesuit mission. In 1713 it was selected as a naval base, named Port Dauphin, and strongly fortified.

Wolfe's Landing, Kennington Cove, N.S.—A cairn with tablet was erected on a plot of land donated by Mr. Dan A. McInnis, to mark the site where the men of Brigadier-General James Wolfe's brigade landed, on June 8, 1758, in the movement which resulted in the capture of Louisbourg.

Canada's Coal Industry, Port Morien, N.S.—A cairn with tablet was erected on the plot of land donated by the Dominion Coal Company, adjacent to the Morien-Long Beach road, to mark the site where the first regular coal-mining operations in America were established by the French, in 1720.

First Export of Coal, Minto, N.B.—A cut-stone monument with tablet was erected near the railway station at Minto, to commemorate the events connected with the discovery and mining of the first coal for export in Canada.

Benjamin Sulte, Three Rivers, P.Q.—A tablet was affixed to the outer wall at the entrance to the City Hall to commemorate the public services of Benjamin Sulte, historian and poet, 1841-1923.

Opening of St. Lawrence River to All Nations, Quebec, P.Q.—A tablet was affixed to the outer wall of the passengers' waiting room at the Princess Louise docks, to commemorate the events which led up to the opening of the St. Lawrence river to all nations, on January 1, 1850.

First Geodetic Survey Station, King Mountain, Kingsmere, P.Q.—A cairn with tablet was erected on a plot of land donated by Mr. M. P. Mulvihill, to mark the site where the triangulation system of the Geodetic Survey of Canada, Department of the Interior, was commenced in 1905.

Quebec Seminary, Quebec, P.Q.—A tablet was affixed to the outer wall of Laval University to mark the site of the seminary established on March 26, 1663, by Mgr. de Laval, first Bishop of Quebec. This seminary is the oldest educational house for boys in Canada.

Chambly Canal, Chambly, P.Q.—A cairn with tablet was erected on the canal reserve adjacent to the Longueuil-St. Jean highway, to commemorate the events associated with the construction of this canal, begun in 1831.

Mattawa Portage, Mattawa, Ont.—A cairn with tablet was erected in Memorial Park to mark the site of one of the chief portages on the main canoe route from Montreal to the Great Lakes, and beyond, in fur-trading days.

Southwold Earthworks, near St. Thomas, Ont.—A stone gateway was built at the entrance and a tablet affixed to it to mark the site of this unique example of a double-walled aboriginal fort, the origin and age of which remain unknown.

Fort George, Niagara-on-the-Lake, Ont.—A cairn with tablet was erected on the military reserve, to mark the site of the fort which was built there in 1801, and strengthened and enlarged by General Brock in 1812. The fort was maintained as a military post until 1845.

Early Fur Trade, Wawanesa, Man.—A cairn with tablet was erected in the town park, adjacent to the Sunshine Highway, to commemorate the events associated with the seven fur trading posts, built in that vicinity between 1785 and 1828 by the North West, Hudson's Bay, and X.Y. companies.

Dominion Lands Survey System, near Headingly, Man.—A cairn with tablet was erected adjacent to the main highway on a plot of land donated by Mr. John T. Haig and Hon. A. Benard, to mark the site where the first monument of the Dominion Lands Survey System was placed July 10, 1871. The system then inaugurated now extends across the prairies and to the Pacific coast.

Indian Treaty No. 6, Fort Carlton, Sask.—A cairn with tablet was erected on a plot of land, donated by Mr. W. A. Urton, to mark the site where in 1876 Treaty No. 6 was negotiated between Commissioners of the Crown and the Crees.

Henry House, Jasper Park, Alberta.—A cairn with tablet was erected near the bridge over the Athabaska river to mark the site of Henry House, founded by the North West Company in 1811. This post became an important point in the transportation system of the North West Company and later of the Hudson's Bay Company.

David Thompson, Jasper Park, Alberta.—A cairn with tablet was erected on a rocky eminence, immediately adjacent to the east end of the Athabaska River bridge, to commemorate the public services of David Thompson, who in 1810-11 discovered the Athabaska pass. This immediately became a regular route across the mountains in this region and so continued until the advent of railway communication.

Pacific Cable, Bamfield, B.C.—A tablet was affixed to the Pacific Cable Building to mark one terminus of this British state-owned cable which was completed and officially opened on October 31, 1902.

Simon Fraser, Musqueam, B.C.—A monument with tablet was erected adjacent to Marine Drive, near the west boundary of the Musqueam Indian Reserve, to mark the place where Simon Fraser ended his exploration of the Fraser river from Fort George on July 2, 1808.

Preservation Work

Preservation and other work was carried out at several of the larger sites as follows:—

Louisbourg Fortress, Cape Breton Island.—Through recent excavation and restoration work carried out at Louisbourg, the massive foundations of the old fortress are emerging from the grassy mounds which have hidden them for the past century. Several of the original streets of the fortress town have been re-located through the use of old plans obtained from Paris. Rue d'Orleans has been surfaced from Rue St. Louis to the east gate, and a bridge constructed over the moat at the latter point to provide an entrance to the old French and English cemeteries. The roof of the bomb-proof casemates at the southern end of the King's bastion has been repaired in concrete, preserving the old French masonry effect. The gateway between the chapel and the barracks has been opened, and the walls of the Governor's house and the southern side of the barracks exposed. The walls of the hospital are showing for a short distance, and in several places about the fortress the arches of the doors and windows of the basement storerooms can be seen.

Fort Monckton, Port Elgin, N.B.—The grounds were cleared and levelled and the old trenches cleaned out and reshaped. A sea wall was constructed to prevent further erosion.

Fort Chambly, Chambly, P.Q.—An iron picket fence was erected around a portion of the fort property and repairs made to the dungeon, northwest bastion, powder magazine, and northeast bastion. A section of the north dry stone wall was substantially reconstructed.

Fort Lennox, Ile-aux-Noix, P.Q.—The old bridge over the moat at the south entrance of the fort was demolished and a new bridge constructed in its place. A temporary wharf was erected at the west side of the island, and repairs made to the wharf at the east side.

Fort Cathcart, Cedar Island, Kingston, Ont.—The interior and exterior walls were repaired and pointed, the iron casements placed in position, and three large guns mounted on separate stone drums. The whole tower was thoroughly cleaned.

Acquisition of Sites

Arrangements were made for sites or locations on which to erect memorials or place tablets in connection with the following:—

St. John, N.B., Mallard House.—To mark the place where the first Legislature of New Brunswick assembled in February, 1786.

Niagara-on-the-Lake, Ont.—To commemorate the valiant services of the officers and soldiers of Butler's Corps of Rangers, 1777-1784.

Carrying Place, Bay of Quinte, Ont.—To mark one end of the portage from the bay of Quinte to lake Ontario.

Ottawa, Ont.—To affix a tablet bearing an appropriate inscription relative to the work of Samuel Champlain, to the Champlain monument, Nepean point, Ottawa.

Fort Erie, Ont.—To commemorate the capture of the United States schooners *Ohio* and *Somers*, during the war of 1812-14.

Toronto, Ont.—To affix a tablet to the wall of the main corridor of the first floor of the Parliament Buildings to commemorate the public services of General Sir Gordon Drummond.

Normandale, Ont.—To mark the site of the Normandale Furnace, founded in 1818, by Samuel Mason.

Rocky Mountain House, Alberta.—A plot of land twenty-five feet square was donated to the Department by Mrs. Mabel A. Brierly of Rocky Mountain House, on which to erect a memorial to mark the site of Rocky Mountain House, built by the North West Company in 1799.

Quesnel, B.C.—To erect a cairn with tablet to commemorate the construction of Collin's Overland Telegraph Line in 1865-66. This was the first unit in the telegraph system of the West Coast.

Dawson, Y.T.—To affix a tablet on the wall of the main corridor of the Administration Building, Dawson, to commemorate the Yukon gold discovery, 1896.

Markers will be erected in connection with the opening of the following canals: *Cascades and Soulanges Canal, Cascades Point, Que., 1783; Lachine Canal, Lachine, Que., 1824; Carillon Canal, Carillon, Que., 1833; Grenville Canal, Grenville, Que., 1833; Cornwall Canal, near Cornwall, Ont., 1842; Farran's Point Canal, Farran's Point, Ont., 1847; Rapide Plat Canal, near Morrisburg, Ont., 1847; Galops Canal, Iroquois, Ont., 1846.*

APPENDIX

Alpine Club of Canada

Report of the Secretary—Banff Club-House, 1930

During the year the club-house was a centre of information for people interested in mountain climbing. This branch of sport is becoming increasingly popular at Banff as good motor roads and well kept trails bring some of the most attractive mountain districts within easy reach of climbers. The club-house was open earlier than in previous years and this with the special camp arrangements added greatly to the comfort and enjoyment of visitors who made the club-house their headquarters for climbs and expeditions in the neighbourhood.

Many improvements were made about the premises during the year. Construction work on staff quarters was proceeded with and the management committee approved the building of a new cabin. For the convenience of members visiting out of the regular season two double cabins were left equipped with all necessaries except food. The innovation proved a great success. Nineteen parties, totalling 119 persons, availed themselves of the accommodation provided.

The attendance of members was extremely gratifying, 428 visitors being reported from various points throughout the British Empire, the United States, China, Holland, Denmark, and France.

Report of the Secretary—Maligne Lake Camp

The twenty-fifth annual camp of the Alpine Club of Canada was held at Maligne lake, Jasper National Park, from July 28 to August 16, 1930. The magnificent scenery, perfect weather conditions, and attractive camp grounds, with an unexcelled field for climbers combined to make the camp one of the most successful yet held. About the campfire extremely interesting talks were given, including those by Prof. A. P. Coleman, Prof. C. Fay, the Hon. R. Bruce, Dr. W. Boyd, and two members of the Mount Everest expeditions, N. E. Odell and C. G. Crawford.

From the main camp at Maligne lake subsidiary camps were established at Coronet creek, southeast a distance of six miles, and at Sandpiper creek near the Narrows. Operating from the main camp, climbs made included those to mount Llysyfran—a first ascent—by a party led by C. G. Crawford; mount Julian—a first ascent by way of the northeast couloir—by a party under the leadership of T. B. Moffatt; an unnamed peak via the wall between mounts Julian and Moffatt, under the leadership of T. B. Moffatt. Other climbs made were the Thumb, mount Warren by the easterly snowfield, and mounts Charlton, Unwin and Sampson. Trips were also made to lake Ultra-Maligne, thence to mounts Julian and Moffatt; to Canyon creek and snowfield; and to the glacier between mounts Mary Vaux and Llysyfran.

From Coronet Creek camp a first ascent was made by members under the leadership of S. B. Hendricks and H. E. Sampson of mount Coronet; mount Brazeau by way of the west face of the col between mounts Brazeau and Henry McLeod, under the leadership of Dr. Sharpe, B. Jefferson, A. A. McCoubrey, and Hans Fuhrer. Additional climbs undertaken included those of mounts Warren, Replica, and Henry McLeod.

Climbs made from Sandpiper camp were first ascents of the Wedge; mount Southesk under the leadership of D. M. Woods; mount Maligne peaks.

Those in attendance at the annual camp were drawn from England, the United States, Sweden, and Canada.

THE NATIONAL PARKS OF CANADA

(Eighteen in number with a total area of 12,059 square miles)

Park	Location	Date established	Area in square miles	Characteristics
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,585.00	Mountain playground containing the two famous resorts, Banff and Lake Louise. Massive ranges, upper slopes bare and worn, or glacier crowned; lower slopes covered with luxuriant forests and flowered alplands; glacier-fed lakes. Wild deer, goat, sheep, elk, etc. Recreations—alpine climbing, riding, swimming, golf, tennis, motoring, skiing, tobogganing, snow-shoeing, skating, curling.
Buffalo.....	Eastern Alberta, near Wainwright.	1908	197.50	Fenced enclosure; home of the Federal government buffalo herd. Over 6,000 buffalo, also moose, deer, elk, yak and hybrids.
Elk Island.....	Central Alberta near Lamont.	1911	51.00	Fenced enclosure, containing over 800 buffalo, also moose, elk, and deer.
Fort Anne.....	Nova Scotia..... (Annapolis Royal).	1917	31 (acres)	National Historic Park.
Fort Beausejour....	New Brunswick near Sackville.	1926	59 (acres)	National Historic Park.
Georgian Bay Islands	In Georgian Bay near Midland Ontario.	1929	4.63	Twenty-nine islands in Georgian Bay. Beausoleil, largest of the group, is an ideal summer resort. Fine bathing beaches, beautiful groves of trees, varied bird and plant life.
Glacier.....	Southeastern British Columbia on summit of the Selkirk range.	1886	521.00	More massive formation of the old Selkirk range; luxuriant forests, alpine flower gardens. Centre for alpine climbers. Illecillewaet and Asulkan glaciers and valleys; Nakimu caves, Marion lake, Rogers and Baloo passes.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.00	Immense mountain wilderness, rich in historical associations. Numbers of unclimbed peaks, glaciers, snow-fields, canyons, lakes of wonderful colouring; Athabaska valley, Maligne lake, Mount Edith Cavell; Miette hot springs, Largest big game sanctuary in America. One of the finest golf courses on the continent.
Kootenay.....	Southeastern British Columbia along Banff-Windermere highway.	1920	587.00	Park extends five miles on each side of Vermilion-Sinclair section of Banff-Windermere highway. Deep canyons, Iron Gates, Briscoe range, Sinclair canyon, famed Radium Hot Springs. Bear, deer caribou, and mountain sheep.
Mount Revelstoke...	Southeastern British Columbia on the summit of Mount Revelstoke.	1914	100.00	Nineteen mile drive up Mt. Revelstoke affording panoramic views of the Columbia and Illecillewaet valleys, Clach-na-Cuddin ice-field, lakes Eva and Millar. Game preserve and winter sports resort.
Nemiskam.....	Southern Alberta near Foremost.	1922	8.50	Fenced animal reserve, the home of 300 antelope.
Point Pelee.....	Southern Ontario on lake Erie.	1918	6.01	Most southerly mainland point in Canada. Northern limit of many migratory birds; summer resort and bird reserve; unique flora. Recreational area.

Park	Location	Date established	Area in square miles	Characteristics
Prince Albert.....	Central Saskatchewan, north of Prince Albert	1927	1,869.00	Forest country of northwestern Canada, birch, spruce, jack-pine poplar; lakes and streams; moose, deer, bear, beaver and interesting bird life. Excellent fishing, northern pike, pickerel and lake trout; fine white sand beaches, ideal camping grounds.
Riding Mountain.....	Southwestern Manitoba west of lake Winnipeg.	1929	1,148.04	Rolling woodland country in western Manitoba dotted with several beautiful lakes. Natural home for big game including largest herd of wild elk in Canada. Fine bathing and camping, summer resort.
St. Lawrence Islands	In St. Lawrence river between Morrisburg and Kingston, Ontario.	1904	180.8 (acres)	Thirteen Islands among the Thousand Islands in the St. Lawrence river. Recreational area, camping, fishing.
Waterton Lakes.....	Southern Alberta adjoining Glacier park in Montana, U.S.A.	1895	220.00	Mountains noted for beauty of colouring; lovely lakes, picturesque trails; waterfalls, snowpeaks trout fishing, camping resort; government golf course.
Wawaskesy.....	Southeastern Alberta...	1922	54.00	Antelope reserve, as yet undeveloped.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.00	Rugged scenery on west slope of Rockies; Kicking Horse valley, lofty peaks, large number with permanent ice-caps or glaciers; famous Yoho valley with numerous waterfalls, one over 1,200 feet in height. Natural bridge, Emerald lake, lakes O'Hara and McArthur.

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DEPARTMENT OF THE INTERIOR, CANADA
HON. THOMAS G. MURPHY, Minister H. H. ROWATT, Deputy Minister

NATIONAL PARKS BRANCH
J. B. HARKIN, Commissioner

23rd
Annual report

National Parks of Canada

Report of the Commissioner



YEAR ENDED MARCH 31

1931/1932

OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1932

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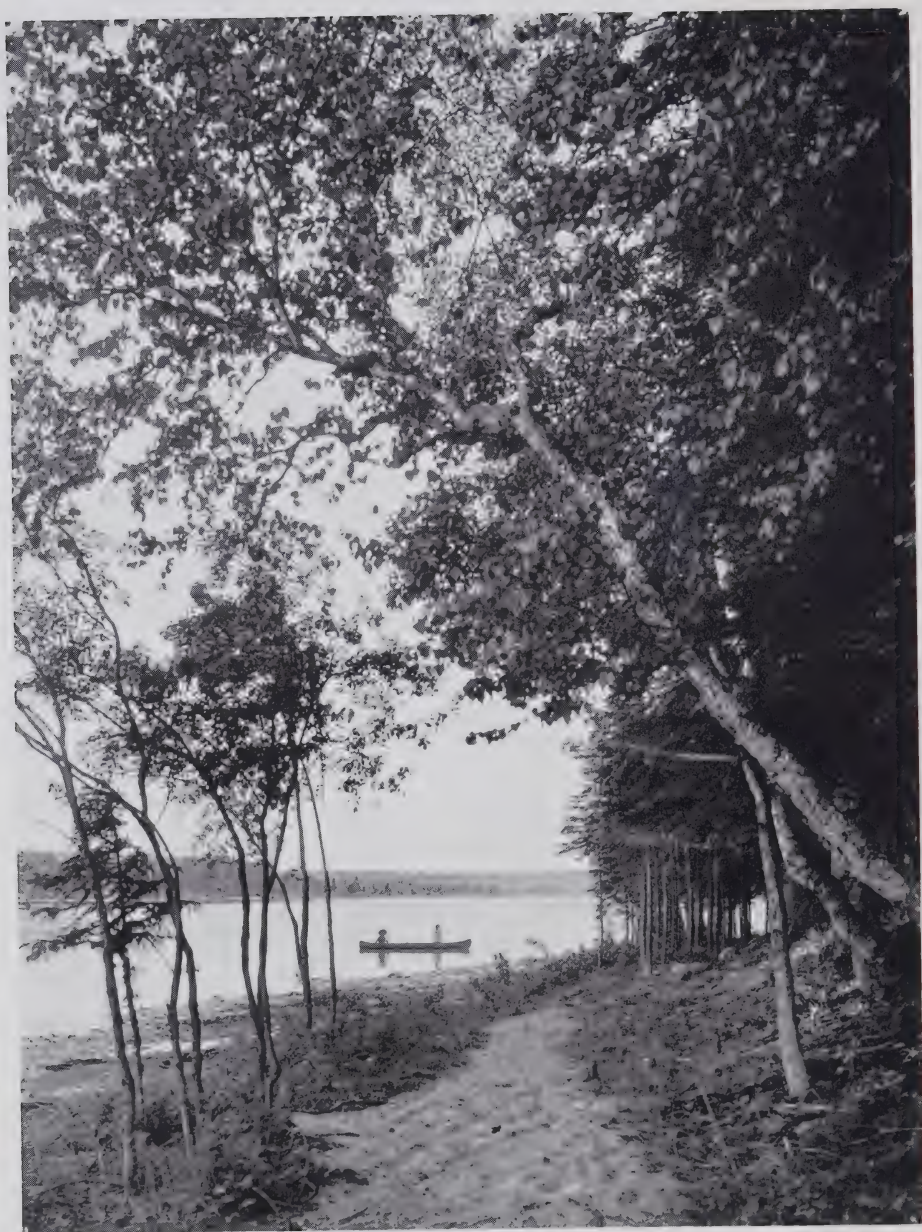
1932

OTTAWA

F. A. ACLAND

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1932



Vista of Clear Lake, Riding Mountain National Park.

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

GENERAL

The fiscal year 1931-32 was a period of sound progress throughout the National Parks system. The initiation of new works was necessarily restricted owing to the need for economy but through the appropriation of unemployment relief funds numerous important works were proceeded with during the winter season which would otherwise have had to be held over for better times. No new areas were added to the Parks system during the year although the question of the establishment of parks in the provinces of New Brunswick and British Columbia was discussed.

A movement has received wide support in the United States and Canada for the creation of an International Peace Park designed to commemorate the long standing peaceful relations between the people of the two countries. In pursuance of this object measures have been introduced in the United States Congress and in the Parliament of Canada respectively, which when enacted will serve to bind in spirit Waterton Lakes National Park in Alberta and Glacier National Park in Montana under the name of Waterton-Glacier International Peace Park, without in any way infringing on the administrative responsibilities of either country.

VISITORS TO NATIONAL PARKS

Notwithstanding the depressed business conditions, the National Parks of Canada enjoyed a year of gratifying success with respect to tourist travel. The number of visitors to the parks as a whole showed an improvement over the previous year. In certain of the larger western parks a slight falling off was recorded but the newer parks and some of those in the East reported substantial increases with the result that the total number showed an increase. The maintenance of travel to the parks during the past year may be taken as an indication that the Dominion's citizens are becoming "park conscious." They are recognizing more each year the tremendous benefits to be derived from a sojourn in the parks and their attendance is a tribute to the foresight which made possible these immense scenic reserves wherein nature in all her beauty and impressiveness is preserved for the enjoyment of the people of Canada and the visitor within her gates. Canada has set apart areas aggregating more than 12,000 square miles for national park purposes, comprising eighteen reservations each possessing its own characteristics. Seven of the nine provinces are represented in the National Parks system—Alberta with three scenic and four animal parks; British Columbia with four scenic parks; Manitoba and Saskatchewan with one scenic park each; Nova Scotia and New Brunswick with one historic park each; and Ontario with a recreation park and two island park units.

The following table shows the number of visitors by parks with comparative figures for the previous year:—

National Park	1931-32	1930-31	National Park	1931-32	1930-31
Banff.....	183,946	188,443	Mount Revelstoke.....	6,000	5,000
Buffalo.....	13,461	12,537	Nemiskam.....	52	42
Elk Island.....	29,986	30,138	Point Pelee.....	150,380	104,000
Fort Anne.....	17,000	18,000	Prince Albert.....	29,537	17,164
Fort Beausejour.....	12,000	11,972	Riding Mountain.....	38,329	12,028
Georgian Bay Islands.....	3,760	1,000	St. Lawrence Islands.....	15,000	15,000
Glacier.....	1,000	1,000	Waterton Lakes.....	43,391	44,827
Jasper.....	11,025	13,783	Yoho.....	18,220	23,291
Kootenay.....	43,128	43,125	Totals.....	616,215	541,350

ENGINEERING

In addition to the regular program of engineering work carried on in the National Parks and at historic sites, the branch is charged with the responsibility of constructing the Dominion's section of the Big Bend highway, which when completed will form part of the Trans-Canada highway now under construction. Some years ago the federal Government built a section of road from Lake Louise in Banff National Park through the Kicking Horse valley and



Blasting Rock Side-hill at Mile 53, Big Bend Highway.

Yoho National Park to a point connecting with the provincial road from Golden, British Columbia, while at the same time the Province of British Columbia completed a section of road up the Fraser valley and on to Revelstoke. There remained only the barrier of the Selkirk range to be surmounted, namely from Donald to Revelstoke, but this undertaking involved engineering difficulties of some magnitude. Following the necessary preliminary surveys it was decided to follow a route down the valley of the Columbia river, known locally as the

Big Bend and by agreement it was arranged that the Dominion would construct the eastern section from Donald to Canoe River, and that the Province of British Columbia would be responsible for the building of the western section from Revelstoke to Canoe River, the length of each section to be about eighty miles.

Construction of the Dominion section has been actively pursued with a view to its early completion. Work on the road was commenced at Donald late in 1929 and at the close of the present fiscal year a total of forty-five miles had been completed, leaving approximately thirty-five miles yet to be constructed.

The fiscal year under review witnessed extensive progress in the development of the National Parks. Important works were carried out in Banff, Jasper, Yoho, Kootenay, Prince Albert, Riding Mountain, St. Lawrence Islands, and Georgian Bay Islands National Parks. This included general maintenance of all services, including streets, highways, electric lighting, water supply, and sewage disposal; erection of new bridges; the development of motor camps in the newer parks; the projection of new highways, trails, and telephone lines; the laying out of townsites; and the construction of administration buildings. In connection with historic sites, there was the erection of memorial cairns and monuments in nearly all the provinces of Canada, as follows: in New Brunswick, at Fort Nerepis and at Beaubears island; in Nova Scotia, at Annapolis Royal and at Port Toulouse; in Quebec, at Lachine, Grenville, Carillon, Cabano, and Lacolle; in Ontario, at Kingston, Maitland, Dundas, and Amherstburg; in Manitoba, at Battery point, Churchill; in Alberta, at Rocky Mountain House; and in British Columbia, at Quesnel. Tablets were also affixed to structures or works at a number of sites and considerable preservation work was carried out at other sites.

ROADS, TRAILS, AND TELEPHONE LINES

In the following table is shown the mileage of roads, trails, and telephone lines in the various National Parks at the close of the fiscal year. The maintenance of these lines of communication is of extreme importance not only because they increase the attractiveness of the parks to tourists but because of their usefulness in fire suppression and game protection.

National Park	Roads			Trails	Telephone Lines
	Motor	Secondary	Total		
	(miles)	(miles)	(miles)	(miles)	(miles)
Banff.....	105	18	123	621	213.25
Buffalo.....	1	30	31		35
Elk Island.....	13	2	15		
Glacier.....	9		9	105.5	7
Jasper.....	76	33	109	770.5	353
Kootenay.....	63	8	71	121.5	61.25
Mount Revelstoke.....	19		19	35.5	17
Point Pelee.....	7		7		
Prince Albert.....	39		39	267.75	129
Riding Mountain.....	55		55	200	146
Waterton Lakes.....	20	14	34	222.33	57.13
Yoho.....	50	5	55	170	47.75
Total.....	457	110	567	2,514.08	1,066.38

UNEMPLOYMENT RELIEF

The allotment of a substantial portion of the funds provided by the Dominion Government for unemployment relief to work in the National Parks resulted in the employment of a large force of men in addition to the regular parks' crews.

The major part of the work performed consisted of the erection of new buildings and bridges; repairs to existing structures; road construction, including clearing right of way; and surveys and the delineation of park boundaries. This work was carried on in the following National Parks; Banff, Jasper, Kootenay, Yoho, Waterton Lakes, Elk Island, Prince Albert, and Riding Mountain.



Completed sub-grade on Banff-Jasper Highway (Lake Louise end)
near Station 320.

It will be observed from the following table that a total of 4,354 men (local and transient) were given employment during the period commencing September 15, 1931, and terminating March 31, 1932; and that 265,503·6 man-days work were provided. (Additional details will be found on pages 33, 34 and 35.)

Area	Men Employed		Man-days of Work	Gross Wages
	Locals	Transients		
				\$
Banff National Park.....	281	94	28,300·5	83,349 66
Jasper National Park.....	261	19	19,290	55,440 27
Kootenay National Park.....	119		7,415	20,236 05
Yoho National Park.....	99		5,476·9	15,316 92
Waterton Lakes National Park.....	54	155	15,269	41,979 51
Elk Island National Park.....	56	140	13,174·7	22,041 15
Prince Albert National Park.....	190	188	15,096	41,646 05
Riding Mountain National Park.....	504	1,305	93,050	209,461 47
Banff-Jasper Highway.....		690	57,501·5	120,974 21
Golden-Revelstoke (Big Bend) Highway.....	199		10,930	32,115 01
Totals.....	1,763	2,591	265,503·6	642,560 30

WILD LIFE PRESERVATION

Based on experience gained from a study of the movements of wild life over a period of years, it would appear that the fauna native to the National Parks has increased to a satisfactory extent. The replenishment of the numbers of bighorn sheep and Rocky Mountain goat is a notable example of the effect of sanctuary conditions, while the increase in the numbers of other species including deer and elk, has been correspondingly good. Touching the wild ani-

mals in semi-captivity at Wainwright; the buffalo, elk, and deer in Elk Island Park; and the antelope at Nemiskam, the increases have been most remarkable.

In regard to bird life, a similar gratifying condition is reported. Wherever sanctuary conditions have been established, the birds protected have rapidly responded with large increases in their numbers.

A census taken of the animals in paddocks or fenced-areas, as of March 31, 1932, is reproduced in the following table:—

Animal	Banff Park (Paddock)	Buffalo Park	Elk Island Park	Nemiskam Park	Riding Mountain (Paddock)	Total
Antelope.....		1		425		426
Buffalo.....	18	6,315	1,000		20	7,353
Deer (mule).....		2,500	208			2,708
Deer (white-tail).....					1	1
Elk.....	21	916	700		12	1,649
Moose.....		86	550		2	638
Yak.....	7	30				37
Hybrids (buffalo).....		33				33
Domestic cattle.....		9				9
Angora goat.....	2					2
Rocky Mountain goat.....	2					2
Rocky Mountain sheep.....	12					12
Four-horned sheep.....	5					5
Totals.....	67	9,890	2,458	425	35	12,875

FOREST FIRE CONTROL

The incidence of fire, than which no greater menace exists in point of view of the aesthetic and economic value of National Parks, was not unfavourable, on the whole, during the season of 1931, compared with former years.

Throughout the southern portion of Riding Mountain National Park the fire hazard was undoubtedly serious owing to the absence of rain in any appreciable quantities before June. However, practically all fires originated outside the boundaries of the park which suffered primarily through fires that were swept in before prevailing high south winds. Coupled with the extremely dry weather, the unusual number of fires, occurring more or less simultaneously, taxed the equipment and endurance of the fire-fighting organization to the limit.

In Prince Albert National Park, while the imminence of fire existed, the situation was never out of control. This was largely due, in addition to the regular patrols, to the excellent service rendered by the Royal Canadian Air Force aeroplanes stationed at Ladder Lake, consisting of three patrol units, by means of which it was possible to locate and suppress the fires before they attained serious proportions.

National Parks in Alberta suffered but little damage from fire during the season under review. Conditions throughout the Banff area were somewhat unfavourable during the month of May owing to lack of precipitation, but the loss was negligible. All danger was removed following a satisfactory rainfall in June. The situation throughout the remainder of the Parks in Alberta compared favourably with the record for previous years.

The following tabulation indicates in detail the number and extent of the fires, together with the cost of suppression, during the period covered by this report.

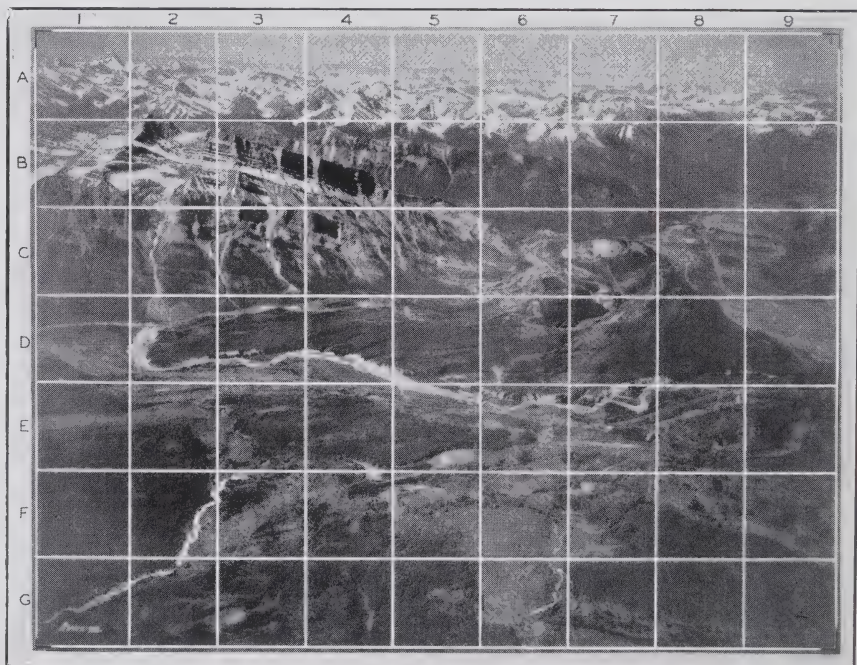
GENERAL FIRES

Park	Fires	Area burned	Cost of extinguishing	
	No.	Acres	\$	cts.
Banff.....	17	4 $\frac{1}{2}$	265	72
Jasper.....	7		33	80
Yoho.....	3	1	156	77
Glacier.....	2	$\frac{3}{4}$	72	71
Elk Island.....	1	$\frac{1}{2}$	0	55
Mount Revelstoke.....	2	17 $\frac{1}{4}$	253	53
Point Pelee.....	1	$\frac{3}{4}$		
Prince Albert.....	8	2,561 $\frac{1}{4}$	1,293	90
Waterton Lakes.....	1	1	224	53
Riding Mountain.....	53	56,054 $\frac{1}{4}$	11,404	01
Georgian Bay Islands.....	2	1	3	00
Total.....	97	58,644 $\frac{5}{12}$	13,708	52

RAILWAY FIRES

Banff.....	7	4	17	75
Yoho.....	4	1 $\frac{7}{12}$	111	84
Total.....	11	5 $\frac{7}{12}$	129	59
Grand total all fires.....	108	58,650	13,838	11

It is of interest to record that a new type of forest fire pumper is being developed by the branch. The outfit, which weighs not more than 125 pounds, consists of a four-cycle engine and a pump of the displacement or rotor type of a new and especially effective design, capable, it is claimed, of delivering fifty-three imperial gallons of water per minute at 200 pounds pressure.



Oblique Aerial View of Bow Valley, Banff National Park, showing Grid in Position over Photo.

Through the co-operation of the Topographical Survey of the department and the Royal Canadian Air Force a set of stereoscopic oblique photographs was taken covering the valleys of the Bow, Cascade, and Spray rivers and of lake Minnewanka. The photographs give an excellent view of the country particularly when examined under a strong stereoscope. One of the main purposes of these photographs is to assist in fire suppression and forest protection. Copies have been supplied to the warden service with a grid squared to the scale of one inch, which when superimposed on the print makes it possible to report the location of outbreaks of fire with remarkable accuracy. The same method may be adopted when reporting particulars as to water supply, suitable points from which fire-fighting operations might commence, and means of approach.

LANDSCAPE AND ARCHITECTURE

In order to produce a distinctive type of architecture in the National Parks and at the same time keep all construction in harmony with the beauty of the surroundings, all plans for Government buildings in the National Parks are designed by the branch, while plans and specifications for buildings to be erected by private interests are passed upon and such amendments made as may seem advisable to meet the particular case in hand.

During the year under review some of the more important governmental works designed and carried out under the supervision of the Branch include the following:—

Banff National Park.—New bathhouse and swimming pool at Upper Hot Springs; and garage for Royal Canadian Mounted Police.

Waterton Lakes National Park.—Comfort stations for automobile camp grounds; addition to fish hatchery; alterations to Government boarding house; buildings and layout for proposed automobile bungalow camp.

Yoho National Park.—Detachment buildings for Royal Canadian Mounted Police.

Kootenay National Park.—Detachment buildings for Royal Canadian Mounted Police; buildings and layout for auto bungalow camps at Radium Hot Springs and Kootenay Crossing.

Prince Albert National Park.—Power house; pump house; buildings and layout for auto bungalow camp; layout of aeroplane landing field and hangar site.

Riding Mountain National Park.—Superintendent's residence; golf club house; entrance gateway; general and wardens stores building; wardens cabins (3 designs); addition to Administration Building; buildings and layout for auto bungalow camp.

Point Pelee National Park.—Entrance gate building.

Georgian Bay Islands National Park.—Warden cabin.

Historic Sites.—Preliminary plans for museums at Louisbourg historic site and Beausejour National Park.

PUBLICITY

The policy of directing attention to the National Parks by means of illustrated lectures, radio broadcasts, motion pictures, illustrated pamphlets, and other agencies was continued during the year. By this means the attention of Canadians was directed to the wonderful heritage they possess in these scenic playgrounds while prospective visitors from other countries were impressed with the enjoyment and benefit of a vacation in Canada.

During the fiscal year 133 lectures were delivered; motion pictures shown totalled 1,775; and motion picture films loaned numbered 615. Prepared magazine and newspaper articles sent out to applicants, 150; photographic prints

distributed, 6,322; enlarged photographs sent out, 200; framed pictures loaned for exhibition purposes, 64; lantern slides loaned, 2,780; prepared lantern slide sets loaned, 42; and half-tone engravings loaned, 375. Addresses were delivered at the conventions of the following tourist and travel associations: Association of International Parks Executives; Canadian Automobile Association; Publicity and Tourist Bureau; Manitoba Roads Convention; Manitoba Municipalities Association; Manitoba Motor League; and Adirondack Resorts Association.

Several thousand feet of motion picture film were added to the film library, and the following new films completed and released: *Modern Voyageurs*; *Open Skyways in the Rockies*; *She Climbs to Conquer*; *The Beaver Family*; *Ski-ing in Cloudland*; *Home of the Buffalo*; *Here and There with the Birds of Canada*.

To meet the steady demand for descriptive publications, 75,000 copies of different pamphlets were printed, in addition to 2,500 copies of the Annual Report of the Commissioner. These included; First Editions—*Banff*, *Kootenay*, and *Yoho National Parks*, 25,000; *Riding Mountain National Park*, 10,000; *Point Pelee National Park-Georgian Bay Islands National Park*, 25,000; Map of Points of Interest in Banff, 15,000. A total distribution of 123,731 official publications was made while in addition over 5,000 copies of descriptive tourist literature published by provincial and private enterprise were also sent out.

BANFF NATIONAL PARK

Tourist travel to Banff Park was maintained at a gratifying figure during the year under review notwithstanding uncertain business conditions throughout the world. Motor cars, eastward and westward bound, together, numbered 73,831, the ratio being slightly in favour of traffic westward. The total number of occupants, westbound, was 137,694, of whom 130,438 were Canadians and 7,256 were from the United States, or from other countries. Although the number of cars to and passing through the park was 8.8 per cent less than during the previous year, when 80,976 registered, the reduction in the total number of visitors was only 2.38 per cent of last year's figures of 188,443.

Inasmuch as Banff forms the eastern link of "The Three-Park Unit" comprising Banff-Kootenay-Yoho, the following analysis is of interest as indicating the route followed by, and the number of, tourists making the circuit: Eastern Gateway, Banff National Park, 137,694; Radium Hot Springs Gateway, Kootenay National Park, 20,816; Leancoil Gateway, Yoho National Park, 6,436; via railroad, all routes (estimate) 19,000; total, 183,946.

During the period covered by this report, 47,709 bathers passed through the turnstile at the Cave and Basin bathhouse, compared with 55,146 for the preceding year, a decrease of 7,437. The total number of visitors who signed the register at the Cave adjacent to the bathhouse was 25,247, compared with 45,165 for the previous season.

During the same period 27,292 bathers passed through the turnstile at the Upper Hot Springs bathhouse compared with 35,823 for the year 1930-31, a reduction of 8,531.

The facilities afforded at the Tunnel Mountain camp grounds, on the other hand, were taken advantage of by an increasing number of tourists, with 6,394 cars and 23,068 persons, compared with 5,985 cars and 21,636 persons for the previous year.

Automobile licences issued to motorists carry with them the privilege of camping in the park. In addition there were issued 106 ordinary camping permits as against 161 for the corresponding period of 1930-31.

Public Health and Sanitation.—Very few cases of sickness occurred in Banff, and those were of the class common to children. All cattle in the park were subjected to the annual tubercular test by the sanitary inspector in con-

junction with veterinary inspectors of the Health of Animals Branch of the federal Department of Agriculture. One hundred and eighty head of cattle were tested, with satisfactory results in all cases. The usual series of water and milk analyses were made by the University of Alberta.

Permits and Licences.—A total of 15,984 permits and licences was issued during the year, compared with 17,819 for 1930-31. Transient motor licences accounted for 14,448 of this total, the balance of the licences being made up as follows: motor licences for Park residents, 557; chauffeur's licences, 200; hotel licences (including rooming establishments), 157; auto livery licences, 96; guide's licences, 49; restaurant and tea room licences, 32; business licences, 58.

Mosquito Control.—Effective mosquito control work was carried on during the past year in the vicinity of Banff. The method of control followed consists of frequent applications of oil upon the waters of the area where the larvæ of the mosquito occur. This operation is commenced early in the spring and continued during the summer, or until all danger of incubation has passed. A total of 3,000 gallons of oil was distributed during the season of 1931. Other means of control included extension of drainage ditches; cutting of new trails through the swamps and of burning off the long grass the previous autumn. Last year an experiment was conducted with satisfactory results by distributing quantities of sawdust, impregnated with oil, upon the surface of the pools which in a few hours spread over the entire body of water. By this means considerable time and expense were saved.

New Works.—The new bathhouse now in course of construction at the Upper Hot Springs will meet a great need and prove an additional attraction to tourists. The building has been erected on the slope of Sulphur mountain, at an elevation of 5,280 feet above mean sea level, and a magnificent view of the Bow river is obtained from the spacious terrace overlooking the swimming pool.

Road work has made satisfactory progress, particularly under relief measures, of which mention has been made elsewhere in this report. Existing roads have been maintained in an excellent condition, and the application of mineral oil has added greatly to the comfort of motorists. A total of 164,309 gallons was distributed during the season. No new trails were constructed, but existing trails were kept in good condition throughout the park.

In connection with the park telephone system, all lines of communication were maintained in first class order and a new line was constructed from Indian Head to Scotch camp.

Fires.—During the year a total of twenty-four fires occurred, of which seventeen were classed as general and seven as railway fires. The damage to timber was not serious and the cost of suppression amounted to only \$283.47—on the whole a satisfactory year in that respect.

Building Permits.—Private enterprise in the matter of building was gratifying. Thirty-one permits were issued during the year with a total property value of \$41,205, compared with one hundred and twenty-seven permits with a valuation of \$323,035 for the corresponding period last year.

Banff Museum, Zoo, and Animal Paddocks.—A total of 10,700 persons registered at the Museum, compared with 14,300 for the same period last year. Eighty-two bird specimens surplus to museum requirements were distributed for educational purposes to the Normal Schools at Dauphin, Moose Jaw, Calgary, Vancouver, and Victoria.

The Zoo at Banff was favoured as usual by a great many visitors interested in the wild life indigenous, for the most part, to the Rocky mountains. Animals on exhibition included: 1 polar bear, 2 grizzly bear, 1 black bear, 1 cinnamon

bear, 1 mountain lion, 1 Canada lynx, 1 timber wolf, 1 badger, 3 marten, 3 porcupine, 2 gopher, 4 coyote, 2 racoon, 2 kit fox. Specimens of birds include: 3 great horned owl, 9 Canada geese, 2 golden eagle, 2 fan-tailed pigeon, 2 crow. The kit fox were kindly donated by the Calgary Zoological Society.

Predatory Animals.—With a view to reducing the numbers of predatory animals in the park, twenty coyotes and three mountain lions were destroyed.

Shipment of Animals.—The following comprises a list of wild animals captured and donated during the year: Experimental Farm, Windermere, B.C., Rocky Mountain sheep, 1 pair; Calgary Zoological Society (for reshipment to Toronto Zoo), Rocky Mountain sheep, 1 pair; San Diego Zoological Society, Rocky Mountain sheep, 2 ewes; Milwaukee Zoological Society, Rocky Mountain sheep, 2 ewes; Calgary Zoological Society, beaver, 1 pair.



Ski-ing in Skoki Valley, Banff National Park.

Fish Hatchery.—The restocking of park waters is a very important feature of park development, and satisfactory progress was made with this work during the year under the supervision of the Superintendent of the Hatchery. Trout, fingerlings, eggs, and fry were distributed during the year as follows:—

Species	Number in Park Waters		Number in Provincial Waters	
	Eggs or Fry	Finger- lings	Eggs or Fry	Finger- lings
Cutthroat trout.....	828,100		380,000	
Rainbow trout.....	61,000		315,000	
Brown trout.....			209,000	81,000
Loch Leven trout.....			185,000	13,000
Eastern brook trout.....	35,000			
Salmon trout.....	7,100			

Recreation.—Banff offers facilities for almost every branch of individual sport both summer and winter, including swimming, bathing, boating, canoeing, tennis, golf, driving, riding, trap-shooting, motoring and walking tours; also collective sport in the way of games, such as polo, football, baseball, and lacrosse. Organizations of a variety of sports hold field days at Banff both summer and winter, which speaks volumes for the popularity of the place. The Annual Indian Days' and Sports were held in Banff on July 21-23 inclusive, under ideal weather conditions. Indian parades were held daily during this period, and proved an excellent attraction. The Banff Winter Carnival, also an annual event, was held February 6-13 inclusive. Snow was plentiful and weather conditions suitable to the occasion.

The Alpine Club of Canada, with headquarters at Banff, carried on its work of disseminating information in regard to matters alpine, and the report of the Secretary of the organization will be found in the Appendix.

JASPER NATIONAL PARK

During the year under review the number of visitors to Jasper Park fell off by about twenty per cent, with 11,025 as compared with 13,783 for the corresponding period last year (1930-31). Of this number, 10,389 came by rail and 636 by motorway.

Jasper Townsite.—During the year, all streets and laneways were maintained in first class condition throughout. Steadily increasing traffic necessitated the reconditioning of principal streets. Other improvements included the laying of additional sidewalks and the planting of trees.

Water service connections number 267, and a satisfactory supply for all requirements was maintained throughout the year. A temporary summer service also was installed to meet the needs of residents in outlying sections of the townsite.

An adequate sewage system has been maintained and operated successfully. Garbage collection is a matter also that receives constant attention in the interests of sanitation.

Electric current for domestic and street lighting is supplied from the Jasper plant of the Canadian National Railways, and serviced on the meter system. Connections to domestic and business premises number 337, an increase over last year of 22.

Permits and Licences.—Fifteen building permits were issued during the year, seven of which were for residences. Licences to the number of 533 were granted, chauffeurs' leading with 108.

Roads and Bridges.—New work carried out during the winter as an unemployment relief measure is dealt with elsewhere in this report. General maintenance of roads was pursued throughout the season. The Maligne Canyon road from Mile 3 to Mile 9 inclusive was treated with gravel and culverts repaired. The Edith Cavell road was maintained in good condition and the surface gravelled from Mile 1 to Mile 6. The guard rail was extended to the foot of Portal Creek hill, a distance of 800 feet, and at Mile 13.5 an additional 500 feet of guard rail was constructed. A small amount of widening was also undertaken on this road between Mile 11.5 and Mile 14. Portions of the road were given an application of oil, which proved very effective. On the Pyramid Lake road a new diversion was completed. On the Medicine Lake tote road two bridges were replaced. A portion of the road was widened and also repaired throughout as required. Repairs and protection works were undertaken on the Astoria River, Portal Creek, and Snake Indian River bridges.

Trails.—Reconditioning of all trails was carried out during the season. A new trail was cut from the Forks of the Whirlpool towards Eremite glacier, completing the final link in a trail opening up some of the finest scenic areas in the park, the route being from Jasper, up the Athabaska river, to the mouth of the Whirlpool; along the Whirlpool to the Forks, thence to Eremite glacier and Amethyst lake and return to Jasper.

Telephone System.—No new telephone lines were constructed but the entire system was maintained in a satisfactory condition, an important consideration in forest patrol and fire protection work.



Sunwapta River Falls, Jasper National Park.

Fires.—No railway fires were reported and only seven general. These fires were brought under prompt control and resulted in little damage. Two fires occurred in the town of Jasper but both were promptly extinguished.

Game.—Bear, moose, deer, elk, and caribou, are very plentiful and increasing in number rapidly. Sheep and goat are also numerous. Fur-bearing animals, beaver in particular, are increasing and many colonies of this species may be found in the Park. The two pairs of beaver shipped to Stanley Park, in Vancouver, are reported to be doing well and a source of much interest to visitors. Marten and weasel also are very numerous.

Fish Culture.—Restocking of park waters was continued during the year, and already a marked improvement in the quantity and quality of fish has been

noted. A total of 250,000 speckled trout eggs was hatched last summer at Jasper and the fry deposited in the waters of Maligne lake. This is the third distribution of its kind undertaken during the last three years, and an immense improvement is noticeable in consequence.

General.—A notable event occurred during the winter in the realm of sport. A ski party, comprising Messrs. R. M. Bennett of Minneapolis, Clifford White of Banff, and A. L. Withers and J. Weiss of Jasper, left the latter town in March on a trip to the Columbia ice-fields and through to Banff. En route these daring skiers successfully negotiated Snow Dome, topographical centre of the Columbia ice-field, one of the great ice-fields on the continent, a singularly outstanding and likely unprecedented feat of pluck and endurance. The course followed by these intrepid skiers, which included passage of the great Athabaska glacier, took them to an altitude in excess of 11,000 feet. They completed the trip in twenty days and reported having enjoyed the experience immensely.

WATERTON LAKES NATIONAL PARK

In common with several other mountain parks during the year under review, a slight decrease in tourist traffic was noticeable. The number of visitors dropped only 3.2 per cent, which may be regarded as satisfactory. A total of 11,692 cars, carrying 43,391 passengers, registered at the park during the tourist season, compared with 11,478 cars and 44,827 passengers for the corresponding period last year. Of this year's total, 32,637 were Canadian tourists, 10,702 from the United States, and 52 from overseas. Notable among the visitors were Hon. Robert Weir, Dominion Minister of Agriculture, and General J. S. Stewart, M.P.

Townsite of Waterton Park.—Streets, lanes, and sidewalks were kept in first rate condition throughout and extensive tree-planting undertaken. Dust was eliminated by the application of road oil on all important thoroughfares. Headquarters' offices and all Government buildings were repaired and painted. No new structures were erected by the department, but seven residences were constructed by private individuals.

Campsite.—The number of tourists that made use of the campsite increased slightly during the period under review and the additional facilities provided were appreciated. All equipment, including benches and tables, was repaired and kept in good order.

Recreation.—The children's playground enjoyed its usual popularity. The tennis courts, of which there are four, were thoroughly gone over and repaired. Three courts only were in use concurrently, one, in rotation, being out of play for reconditioning at intervals throughout the season. The golf links were well patronized and owing to their growing popularity it has been found necessary to proceed with the construction of an additional nine holes which, when completed, will provide an excellent eighteen-hole course. The bathing facilities at Lake Linnet were again taxed to the limit, hundreds being attracted to this popular resort during the hot weather.

Administration.—The Information Bureau was open as usual during the tourist season, with an official in charge. A summer water supply is furnished by the Parks Service. The collection and disposal of garbage and all matters pertaining to the sanitation of the townsite were carefully supervised. The health of the community was excellent and a complete absence of communicable diseases was noted.

Roads and Bridges.—Work on the Akamina road from Waterton Park to Cameron lake was continued throughout the season. At three points slides occurred in the spring, which necessitated the construction of retaining walls of

crib-work. The Pass Creek road, a thoroughfare much frequented by motorists, was improved by straightening and reduction of grades, also by the construction of new bridges and culverts. Chiefly maintenance work was carried out on the Main Entrance and Pincher Creek roads. A sharp curve on the latter was modified and the grade raised to afford a finer view at the turn of the road. The Main Entrance road was straightened at Crooked river and another bridge erected over this stream a short distance east of the old structure. The grade was raised at the dip near Waterton bridge and the road widened at the summit of the hill leading to the townsite from Waterton cabin. The principal thoroughfares were treated with dust-laying oil and all bridges painted during the season.

Trails.—The program included general maintenance of all trails in a state of repair for use in forest patrol and fire protection work. Many improvements also were made on the following trails: Hell Roaring, Pass Creek, Carthew, and



Waterton Lake from Bertha Trail, Waterton Lakes National Park.

Cameron Lake. The Bertha and Carthew trails were most popular with the tourists.

Telephone System.—Forest telephone lines, an important unit of game and fire protection work, were maintained in good working order throughout the park.

Agriculture.—A considerable quantity of fodder is required for the horses on the Park establishment at Waterton Park. In consequence of the unusually dry season the hay crop was not as heavy as in previous years. Nevertheless, seventy-eight tons of hay were cut and baled, a quantity probably sufficient for all requirements. Ten acres were seeded to oats and cut for green feed. Limited grazing on Park areas is permitted under supervision and in this connection permits were issued for 1,230 head of live stock, an increase of 271 head compared with the previous year.

Game.—Notwithstanding the severity of the weather during the past winter, indications point to the fact that all species of game came through this period in good condition. The Park is an ideal sanctuary and this is well illustrated by the satisfactory increase apparent everywhere. The larger animals frequenting the park in increasing numbers include bear, elk, deer, mountain sheep and goat, and of the fur-bearing species, beaver, mink, marten, and rabbit are plentiful. Of the predatory animals, coyotes were more than usually numerous. Wolf and lynx were scarce.

Fish Culture.—The fish hatchery maintained at Waterton Park experienced another year of progress. Carried on under the supervision of a resident superintendent, who acts under the direction of the Department of Fisheries, as at Banff National Park, the work undertaken in restocking park waters has served to increase very materially the attractions of the park as a recreation resort. Angling, in consequence, was very popular. Alderson lake, formerly closed for restocking, was thrown open to fishermen for the first time and full advantage was taken of it. The fish in this lake are reported to have done remarkably well and many excellent catches were reported.

The policy has been adopted of dividing the waters roughly into several areas and of restocking each with one species only. This method affords the angler a definite choice of waters. In pursuance of this arrangement fry and fingerlings were distributed during the year as follows: cutthroat trout fry, 310,000; rainbow trout fry, 139,900; and fingerlings, 3,650.

The superintendent of the hatchery also collected 203,550 eggs of the rainbow trout, an increase of 20,000 compared with last year's collection; also 34,170 cutthroat trout eggs.

Fires.—Despite an extended period of drought, only one fire was reported during the season. This occurred last September in the Belly River district adjacent to the international boundary. Due to the prompt action of two fire wardens of Glacier National Park (U.S.A.) in reporting the fire and in personally combating the flames pending arrival of our forces, the conflagration was brought under control without much damage.

YOHO NATIONAL PARK

Although there was a drop of slightly more than 21 per cent in the number of tourists to the park during the year under review, with a total of 6,094 cars carrying 18,220 passengers, compared with figures for the corresponding period last year of 7,485 cars carrying 23,291 passengers, traffic was well up to average, economic factors being what they were. These figures include 14,654 people from Canadian points and 3,566 from the United States.

The park is served by an excellent system of hotels and hostels. In addition to the motor tourists mentioned in the preceding summary, 4,346 persons registered at the hotels and bungalow camps.

Campsites.—The Kicking Horse camp grounds continued to be a popular resort with motorists, a total of 929 cars with 3,099 passengers having registered during the season. The Field camp grounds and the Mount Chancellor camp grounds also accommodated a considerable number of campers.

Administration.—In consonance with park ideals, property-holders and other residents were given every encouragement to assist in the annual clean-up campaign and also to beautify their grounds. Sidewalks, ditches, and culverts were repaired, and all streets in the townsites were reconditioned and treated with an application of oil.

Work throughout the summer of 1931 was largely confined to general maintenance of roadways, including the re-surfacing and widening on the Emerald Lake, Yoho, and Ottertail roads.

No new trails were constructed during the year under review. A new trail bridge was completed over the Yoho river at the foot of Takakkaw falls and a new foot bridge over Ice river on the Beaverfoot trail.

The park telephone system was maintained in good condition and rendered indispensable service throughout the year. The main telephone line west of Field was refitted and improved between Boulder Creek and Ottertail.

During the winter further engineering works were authorized and carried out under unemployment relief.



Emerald Lake and Mount Burgess, Yoho National Park.

Game.—Indications point to a satisfactory increase in wild life in the park. Moose and elk are plentiful, while black bear and deer are common and are frequently observed by tourists passing through the park.

Several lakes were restocked with fish obtained from the Banff hatchery which will enhance the attractions of the park for anglers.

Fires.—Owing to an abundance of rain, the fire hazard was at no period acute. Seven fires occurred, however, during the year, three classed as general and four as of railway origin, but none assumed serious proportions owing to prompt action on the part of the wardens.

GLACIER NATIONAL PARK

Being inaccessible by motor, Glacier National Park is not frequented by tourists to the extent its natural attractions merit, although considerable numbers come in by rail. The park has been described as the "Home of Solitude" and this has an appeal for many who wish to commune with nature, away from the influences of man, or his works. Owing to restricted tourist accommodation, the number of visitors has been comparatively small and registrations were practically the same as in 1930-31 indicating that approximately 1,000 visited the park this year.

Nakimu Caves.—These caves rank, next to the mountains, as one of the most interesting features of the park. The caves are connected with Glacier by a good road six miles up the Cougar valley, followed by an additional mile of trail. About one hundred tourists visited the caves during the year.



Hellebore, Fern, Bracken and Wild Heliotrope, Upper Cougar Valley, Glacier National Park.

Administration.—Work on roads and trails was largely confined to maintenance. Essential repairs were carried out and all roads and trails were reconditioned. A new bridge was constructed over the Beaver river on the Beaver Valley trail.

Game.—Indications point to a continued increase in the wild life of the park—caribou, deer and goat being particularly plentiful. The park is a natural preserve and specially adapted for fur-bearing animals, the more numerous species including beaver, marten, and weasel. The protective measures in force are bearing fruit.

Fires.—For the third consecutive year no railway fires were reported, while only two general fires occurred, one being due to lightning and the other to a camper's fire. Fortunately, both fires were promptly detected and suppressed without difficulty or heavy expense.

KOOTENAY NATIONAL PARK

In point of view of traffic during the year Kootenay National Park is able to show a slight increase over the corresponding period for the year previous. The Banff-Windermere Highway was opened for the season on May 15, and traffic continued throughout the remainder of the year and well into the middle of February, 1932. The total number of cars passing through the western gateway at Radium Hot Springs was 14,937, carrying 43,128 passengers, compared with 14,299 cars carrying 43,125 passengers for the same period in 1930-31. The figures of 1931-32 are made up of 32,175 local or Canadian tourists and 10,953 United States tourists.

Notwithstanding the slight increase in tourists, the number that took advantage of the bathing facilities at Radium Hot Springs bathhouse was somewhat less, with a total of 21,086 for the fiscal year under review, compared with



Vermilion River, looking towards Gibson's Camp, Kootenay National Park.

22,094 for the previous year. Of the number patronizing the baths during 1931-32, 1,372 were children. The drop in attendance is attributed to a greater number of through tourists making the circuit of the "Three-Park Unit," Banff-Kootenay-Yoho.

Administration.—The building program for the year was light, nothing more than general maintenance being undertaken. However, a site has been cleared for the new police barracks and surveys completed for a new sewage disposal system at the townsite of Radium Hot Springs and camp grounds.

The highway has been maintained in first class condition throughout, further widening and straightening of curves having been undertaken during the summer under the regular appropriation, and during the winter under relief measures. A secondary trail was constructed to Prospectors' valley, a short trail was put through to lake Kaufmann, and all existing trails were cleared of fallen timber and generally re-conditioned. The campsite at Radium Hot

Springs was improved during the season and about 30 per cent additional space provided by the construction of a retaining wall along Sinclair creek, thus greatly improving the facilities for camping by tourists. This camp ground was more popular than ever and as many as sixty-five cars were on the ground at one time. No improvements were made at any of the other campsites, and only minor repairs and painting undertaken.

A new auto bungalow camp is in course of construction in the immediate vicinity of the hot springs, which will provide further accommodation for those who prefer to travel in this way. Eight cabins are under way and more will be completed before the 1932 season opens.

Game.—Hunters reported that throughout the Columbia valley conditions have shown marked improvement since Park restrictions were put into operation, game now being plentiful in areas adjacent to the park where little sport was to be had before; and this applies equally to the Kootenay valley. Wild animals indigenous to the region include grizzly bear, black bear, mule deer, elk, moose, Rocky Mountain goat and bighorn sheep, and many varieties of smaller animals such as mink, marten, beaver, and muskrat.

Fires.—A few fires broke out along the highway but owing to the close watch maintained by the wardens all were suppressed before any serious damage was done. Thoughtlessness on the part of tourists in discarding burning cigarettes or lighted matches would appear to be accountable for these outbreaks. No fires from lightning occurred. Considerable clearing has been carried out in and about the townsite of Radium Hot Springs, which should serve to further reduce the fire hazard in that locality.

MOUNT REVELSTOKE NATIONAL PARK

Due to improved motor roads, avenues of approach to Mount Revelstoke National Park have multiplied considerably in recent years. This was reflected in an increase in the number of tourists during the year under review. Approximately 6,000 people visited the park during the summer, which is an increase of about 1,000 over 1930-31. Quite a number frequented the park during the winter either as spectators, or as participants, in the sport of ski-jumping.

Administration.—Regular road maintenance was carried on throughout the park, but little new work was done. Several rock retaining walls were constructed, replacing old timber cribwork on a number of sections, notably at Bridge creek. No new trails were constructed. Existing trails, however, were repaired and all debris removed.

Game.—Wild life in the park is reported to be on the increase, deer and goat being among the most plentiful. Ruffed grouse were very numerous and blue grouse also are increasing in number.

Fires.—Two fires were reported during the year. One fire was caused by lightning, while the second fire resulted from a cinder from the first fire being carried some distance, where it ignited the bush. Both fires were brought under control without difficulty and the damage done was negligible.

Recreation.—Ski-jumping was, as usual, the most popular activity. Notable among followers of the sport were two Revelstoke athletes in training as candidates for selection as Canadian representatives at the Olympic games.

The annual Ski Carnival was the most successful event of its kind yet held. It is a matter of general interest to record that, in March last, an employee of the department at the park is credited with having made a jump of 269 feet, thus making a new amateur World's record.

PRINCE ALBERT NATIONAL PARK

That the people of Saskatchewan, and tourists generally, appreciate Prince Albert National Park is clearly indicated by statistics compiled during the period under review. The increase in tourist traffic to the park is striking evidence of the fact that the people realize the necessity for recreation in a period of economic stress even more, perhaps, than at other times. It is gratifying, therefore, to report that 29,537 tourists registered in the park during the year, compared with 17,164, for the preceding year (1930-31) an increase of 12,373, or 72 per cent, a remarkable manifestation of park consciousness on the part of the people of Saskatchewan, who contributed the bulk of the visitors.

The Minister of the Interior, Hon. Thomas G. Murphy, was a visitor to the park during the summer (1931) and after inspecting on the ground the various works under way, gained a bird's-eye view of the whole during an aerial trip over the park. Other prominent visitors included Hon. H. E. Monroe,



Reflections in Kingsmere Lake, Prince Albert National Park.

Lieutenant-Governor of Saskatchewan and Mrs. Monroe, whose stay extended to three weeks. Hon. J. T. M. Anderson, Premier of Saskatchewan, also paid a number of visits to the park. On June 25, 26 and 27 the Saskatchewan Motor League held its annual convention in the city of Prince Albert and adjourned to the park where its deliberations were concluded by a round of fishing and boating, which was greatly enjoyed by the three hundred delegates in attendance.

On September 5, two hundred and fifty delegates to the annual meeting of the Canadian Chamber of Commerce, included in their itinerary a trip to the park, where the hospitality extended was much appreciated.

Fish and Fishing.—Fishing is undoubtedly one of the principal attractions. As in former years, pike and pickerel were caught in all the waters of the park. The catch of Great Lake trout during the early part of the season was most

gratifying. In the field of conservation, the survey carried on in 1929 and 1930 under the direction of the Biological Board of Canada was continued during 1931 by the University of Saskatchewan, and additional data were obtained. For experimental purposes, parent bass were procured from the Government of Ontario and introduced into a specially constructed pond, where they will be permitted to acclimatize before being liberated.

Roads.—Park thoroughfares were put to a severe test during the season of 1931, on account of the heavy rainfall and unprecedented traffic. The engineering service, notwithstanding, maintained all roads in excellent condition. The beneficial effect of the work done last winter under relief measures in cleaning up debris alongside the roads was very noticeable particularly along the delightful drive from the boundary of the park to Waskesiu Lake.

Game.—Due to the protection afforded, all wild life in the park is steadily increasing, moose and deer being particularly plentiful. Deer are becoming very tame and can be seen wandering through the subdivision without trace of fear. Bears, too, are noticeably on the increase. Bird life in the park shows indications of being on the increase, with the exception of waterfowl, the concentration of which appears to be about normal.

Buildings.—The building program during the fiscal year was not extensive. However, in connection with the new electric lighting system a power-house was constructed in accordance with approved park standards. Following the necessary tests, the plant was put into operation on July 24, 1931, and the service has given entire satisfaction; the improvement in conditions being specially appreciated at the campgrounds. The plant is capable of developing sufficient power to supply current to private consumers for lighting purposes in addition to meeting ordinary park requirements. In connection with the water supply system, a 16,500-gallon tank has been installed, and with the laying of the water mains this year a very important development will have been consummated. No new telephone lines were constructed.

Permits and Licences.—A total of 266 permits and licences was issued during the year ending March 31, 1932, compared with 107 during the preceding year. The sale of building lots was active, although little new building was done by private interests.

Camp Grounds.—Although the area set aside for this purpose was expected to provide ample accommodation for tourists for some time to come, so great was the influx of visitors to the park during July and August, that it was taxed to capacity. The peak was reached with 3,800 persons, all under canvas. It was necessary to materially extend the boundaries of the camp grounds, which also have been greatly improved in other respects.

Fires.—The season of 1931 was not a particularly hazardous one for forest fires. Only eight outbreaks occurred. An area of 2,561½ acres was burned over and the cost of extinguishing the fires amounted to \$1,293.90. The loss on both counts was fully 50 per cent lighter than during the preceding year.

Sports.—A very successful regatta, organized by the business men of Prince Albert, was held on July 1 over a three-mile course off the bathing beach at Waskesiu lake. Mrs. Monroe, wife of the Lieutenant-Governor of the province, presented the many beautiful trophies to the winners in the various events.

RIDING MOUNTAIN NATIONAL PARK

Riding Mountain National Park continues to advance in popularity and the progress made in the second year since its establishment presages a future of much promise. The people of Manitoba have come to a greater realization

of their natural heritage, as is reflected in the tourist figures for the year. Notwithstanding the widespread financial stress, the number of visitors exceeded the record established during the first year of the park's history by two hundred per cent, that is to say, 10,006 cars carrying 38,329 passengers, registered during the year 1931-32, compared with 6,000 cars and 12,028 passengers for the corresponding period of the year 1930-31. The great majority were from points in Canada. Despite this gratifying increase in the number of visitors, most of whom congregated at Clear Lake, there was no congestion or undue overcrowding noticeable at any period. This can be attributed to the excellent accommodation provided for parking and camping.

Townsite of Clear Lake.—In keeping with park policy, considerable landscape work was carried out to enhance the natural attractions of the townsite. The entrance road from the south gate was reconstructed and new streets and lanes opened up. A large swamp was reclaimed and seeded to grass as a recreation ground and suitable equipment installed. Extensive work was done on the first nine holes of the new golf links, including construction of greens and improvement to fairways. Temporary greens for the nine holes were provided, and the course was well patronized. Work on the second nine holes is now underway.



Pony Riding on Beach, Clear Lake, Riding Mountain National Park.

Roads, Trails, and Telephone Lines.—Approximately eight miles of the Lake Audy road was surfaced and gravelled, thus completing a twenty-five mile all-weather thoroughfare from Clear Lake townsite to lake Audy, where the new buffalo enclosure was constructed during the season. Five miles of new trails were constructed from the townsite of Clear Lake to Grey Owl lake. Existing roads were maintained in good condition, all trails improved, and forty-five miles of telephone lines kept in first class order.

Public Health and Sanitation.—All matters connected with public health and sanitation in the park, including water supply and garbage disposal, were satisfactorily dealt with during the year.

New Buildings.—At the camp grounds, in addition to a full layout of streets, the construction of the caretaker's quarters was completed and additional camp shelters erected, and even with these facilities the grounds were taxed to the limit by tourists desirous of accommodation. An administration building, with offices for the Superintendent, also was constructed during the year.

Engineering Work.—The regular seasonal program of major road construction was augmented by work carried out during the winter on unemployment relief. During the summer work was continued on the Clear Lake-Norgate highway and on the Clear Lake-Dauphin road. Many improvements also were made at the townsite of Clear Lake and at the campgrounds. The completion of these important projects will add greatly to the facilities of the park.

Wild Life.—Game regulations were strictly enforced and the work of patrol pursued actively. Careful observation of the wild life of the park indicates that all species of game are doing well and that the rate of increase is normal.

A distinct increase in the number of deer was noticeable at Clear Lake. Fur-bearing animals were not seen in large numbers. A few otter were seen on the Kennice meadows and several small colonies of beaver were identified. Water conditions for beaver have not been altogether satisfactory in the past, particularly during periods of drought. This has resulted in a forced movement of the animals downstream to locations close to the boundary and even outside the park where conditions seemed better. To offset this tendency steps have been taken, where possible, to move whole colonies of beaver to points offering satisfactory water facilities well within the park, where they can be protected. During the season much valuable information regarding the habits of the beaver was obtained by Grey Owl, a man who has made a close study of the beaver in various parts of the country.

The wide expanse of park land and water available, coupled with the protection afforded, places Riding Mountain National Park in the forefront as a bird sanctuary. A variety of song-birds frequent the Park and migratory birds find here a refuge during flight. Game birds, including partridge, were very plentiful.

During the month of November last twenty head of buffalo from the herds at Buffalo National Park were removed to Riding Mountain National Park as an experiment. For the reception of the animals an area of approximately 320 acres was suitably enclosed, and since their arrival all have done well and appear to be contented in their new environment.

Timber Protection and Fires.—The spring season of 1931 was one of exceptional hazard on account of drought. From the middle of April to the early part of June the absence of rain constituted a serious fire menace, a situation aggravated by high south winds. These unsatisfactory weather conditions applied only to the southern part of the park, however. In the north, matters were better and only one or two minor fires occurred. Practically all fires originated on adjoining homestead lands and spread to the park. A total of fifty-three fires occurred during the year but fortunately the damage was comparatively light, except in the vicinity of Mineral creek where a considerable quantity of spruce timber was destroyed. By arrangement with the Royal Canadian Air Force, an aeroplane was maintained at Clear Lake for fire detection purposes. Three routes were inaugurated and patrols carried out at regular intervals from early in June to the middle of October by which means a number of incipient fires were located and suppressed.

BUFFALO NATIONAL PARK

Precipitation during the summer of 1931 was above the average, and notwithstanding the fact that the range is taxed to capacity, there was a noticeable improvement in grazing conditions and consequently in the condition of the animals. The herd of buffalo now numbers 6,315 head including the past year's natural increase of 1,684. In addition to this great herd of buffalo, the park also provides sanctuary for a number of other species of mammals, including 2,500 mule deer, 916 elk, 86 moose, 1 antelope, 30 yak, 33 hybrids, and 9 domestic cattle, all of which are doing well.

Approximately 328 acres on the farm were seeded down to oats and from the resultant crop 10,000 bushels of grain were threshed, in addition to the harvesting of fifty-eight tons of green feed. Owing to liability of the soil to drifting after a period of intensive cultivation, it was found necessary two



Buffalo Herd, Buffalo National Park.

years ago to seed down a considerable area to grass. Rye and brome grasses, also sweet clover have been used successfully for this purpose. Experimental tests also have been made under the direction of an agrostologist of the Division of Forage Plants, Federal Department of Agriculture, of a variety of grasses, with the result that crested wheat grass and brome grass appear to be the most promising varieties. Some 1,250 tons of hay were garnered during the season, of which 220 tons were of the cultivated strains.

Park Fences.—Maintenance of the main fence, measuring approximately 100 miles in length, is an important item of work. Of special buffalo-proof construction, to withstand any strain or stress, constant vigilance is imperative at all times to ensure prompt detection of any breakage or weakness in the structure. An additional fifteen miles or so of inner or cross-fences must also be cared for, making approximately 115 miles of fencing throughout, all of

which was kept in a satisfactory condition. One half mile of new fence was constructed along the west boundary of winter quarters to provide a "wing" for use during the round-up.

Fire Protection.—The work of fireguarding also constitutes an important branch of the work at Buffalo National Park as loss of pasture from fire would cause almost irreparable damage. Protection in this connection is afforded by means of double fireguards, inside and outside the main fence, and by cross-guards. Practically all ploughing incidental to this work was done by the Park teams.

General Administration.—A small extension was made to the heater house adjacent to the elevated water tank at the Farm (a fire protection unit). Repairs were made to the incinerator at the abattoir and sundry interior improvements were made to all dwellings and boarding camps. The new stable at Rocky Ford was painted. Approximately thirty-six miles of telephone lines were repaired, and all graded roads and improved trails maintained in good condition. About ten miles of old prairie trails were improved for the accommodation of motor traffic. Permits were issued to settlers living in the vicinity of the Park for 550 cords of dry wood and for 6,500 green willow pickets.

Visitors.—A gratifying increase is shown in the number of visitors during the year, 13,461 having registered, compared to 12,537 for the corresponding period last year, the number being made up as follows: Wainwright gate (Home Paddock), 11,286; Hardisty gate (Alexander's), 1,745; and Farm gate, 430. A number even greater than that recorded, visited the Park as many neglected to register.

Mott Lake Recreation Grounds.—The attractions of this favoured prairie resort continue to draw recreationists in large numbers, the bathing beach and picnic grounds particularly being very popular with the people of Wainwright and district.

Predatory Animals.—There appears to be a marked decrease in the number of coyotes in the park and those seen were very wild. Five of these animals were killed during the year.

ELK ISLAND NATIONAL PARK

During the year a total of 29,986 people visited Elk Island National Park, compared with 30,138 for the preceding year, the reduction being largely attributed to a number of rainy week-ends. However, marked interest continued to be shown in the park and its work, and it was necessary to extend the parking facilities at Sandy Beach on Astotin lake to provide accommodation for cars.

The main buffalo-proof fence and all cross-sections of the same were repaired during the year, necessitating the replacement of 407 posts. The construction of the provincial highway along the south boundary of the park also made certain changes necessary in the alignment of the main fence. Protection of pasture is important and all fireguards were ploughed and disked, and four miles of new ground were brought under the plough for added protection. These fireguards consist of two parallel strips of ploughed land, sixteen feet in width, one inside and the other outside the main fence.

Roads.—All roads throughout the park were maintained in good condition during the summer. The road from the junction of Sandy Beach and South End roads was surfaced with gravel, and a distance of about two and one-half miles from the junction, south, also was gravelled. Construction was undertaken of approximately two miles of road from the south end, leaving about two miles still to be constructed.

Haying Operations.—The hay crop for the year, amounting to four hundred tons, was gathered under somewhat unfavourable weather conditions. A fair crop of green feed was reaped from land seeded down to oats.

Animals.—All species of animals came through the winter in first class condition and a substantial increase in number is noted. The original herd of elk, numbering thirty head, has steadily increased and now numbers about 700. A corresponding increase has occurred in other species: buffalo, by careful estimate, numbering 1,000; moose, 550; and deer, 208.

Wild Life.—Migratory birds were reported to be less numerous than in former years during the nesting season. Duck and coot were more plentiful in late autumn, during the migration period. The blue heron, in large numbers, nested on the island as usual. Partridge (ruffed grouse) appear to have increased somewhat in number. Of predatory animals, the coyote, which seemed to have been fewer in number in recent years, became again more plentiful, but no serious losses in young stock were reported on that account.

NEMISKAM NATIONAL PARK

This sanctuary for the preservation of the prong-horned antelope was established in 1915 pursuant to representations that this interesting branch of the ruminant genus was in danger of extinction.

The year under review was in some respects not altogether favourable. The summer season was unusually dry and grazing poor in consequence. A number of good rains were experienced at intervals but on the whole the precipitation was below the average. A wet autumn, followed by early frosts, impaired the condition of the grass, while the depth of snow during the winter made feeding difficult. Notwithstanding these handicaps the antelope have done remarkably well, the natural increase during the period being, it is estimated, considerably more than one hundred in number. The shortage of grass, particularly during the winter months, rendered it necessary to augment the supply by feeding the antelope several tons of alfalfa hay.

Apart from the fence enclosing it, the park is unimproved. Fences were maintained in a safe condition throughout the year and considerable work was involved in keeping wires clear of weeds in summer and snow in winter. Coyotes caused a great deal of trouble.

No efforts are made to attract the tourist, as the park is essentially an animal reserve, but for the student of wild life there is undoubtedly a strong appeal.

GEORGIAN BAY ISLANDS NATIONAL PARK

The island playgrounds grouped together as Georgian Bay Islands National Park are twenty-nine in number, and are situated in Georgian bay. They were included in the National Parks system two years ago. Beausoleil island, which is replete with historic interest, comprises an area of 2,712 acres, more or less and is the largest unit in the Georgian Bay group of islands taken over by the department. Accessible from Midland and Penetanguishene, the various islands of the park group promise excellent facilities for camping, fishing and boating. Beausoleil island, on account of its size, offers the tourist a greater range of interests perhaps and a wider selection in the matter of permanent campsites, but in point of view of scenic beauty a number of the smaller islands may have a stronger appeal for some.

Flowerpot island was acquired more recently for inclusion in the Georgian Bay Park group and while the area has not been formally set apart as yet, it is being administered as such in the meantime. This island, which is accessible from Tobermory, lies in Georgian bay, north of the Bruce peninsula and com-

prises about five hundred acres of well timbered land. The feature from which the island derives its name consists of two irregularly formed limestone pillars, one of about forty-five feet in height and the other of about twenty-five feet, which stand out in bold relief against the horizon in the resemblance of two great flower pots. At one time other similar formations existed but constant erosion due to the action of the water brought about their disintegration and collapse. The agitation for the preservation of the two remaining examples of an interesting geologic phenoma was, in part, responsible for the acquisition of the island for park purposes. Another interesting feature for many is the large caves occurring on the island, some of which are fifty feet above the level of the lake.

During the year under review visitors to Beausoleil island, and other islands in the group, numbered, it is estimated, about 2,800, and at Flowerpot island, about 960, or a total of 3,760, compared with an estimate of 1,000 for the corresponding period last year.



A Corner of Beausoleil Island, Georgian Bay Islands National Park.

Improvements.—Much work of an initial character was undertaken during the year to improve the grounds and equip the various resorts in accordance with park standards. The following are among the more important improvements on Beausoleil island: construction of a number of trails for hiking and erection of direction signs; construction of landing docks at several points; erection of a number of shelters and comfort stations, suitably equipped; and the building of campers' stoves at convenient locations. A warden's cabin has been erected and considerable clearing done along the water-front and elsewhere throughout Beausoleil island, thus adding much to the general appearance of the island and its attractiveness for camping purposes.

At Flowerpot island repairs were made to the "Flowerpots." Incessant wave action, particularly in rough weather, has made serious inroads at the base of these pillars of limestone. To arrest further erosion and preserve the formations, the bases were built up and grouted in a manner designed to cause

the water to flow away and not remain in contact with the stone. A number of trails were opened up to render some of the caves accessible to tourists. These caves are distinctly unique in character and a remarkable manifestation of the action of water.

These island parks are game sanctuaries and subject to the restrictions imposed under Park game ordinances. Patrols are made at regular intervals by a park warden who is responsible for the enforcement of the game regulations and for fire control, an outboard motor launch being the means by which such patrols—between the scattered group of islands—are accomplished. In the case of Flowerpot island, a caretaker has been appointed to look after this resort and to carry out such improvements as are deemed necessary.

Wild Life.—Beausoleil island is frequented by deer in considerable numbers and rabbit also are plentiful. Fox are the only predatory animals reported as occurring on the island. Among species of game birds partridge are the most plentiful.

POINT PEELE NATIONAL PARK

All records in tourist travel to Point Pelee National Park were broken during the year under review, with a total of 38,105 cars carrying 150,380 passengers, compared to 26,000 cars and 104,000 passengers, for the corresponding period last year, an increase of nearly 45 per cent. These figures are a striking manifestation of the value of the park as a playground, and the esteem



Main Driveway looking South, Point Pelee National Park.

in which it is held by the public. Camping permits to the number of 1,071 were issued during the year, made up of 857 transient and 214 seasonal camping parties. Transient permits are good for three days and seasonal permits for, roughly, a period of four months. Over 80 per cent of the camping parties came from the United States, principally from Michigan.

Wild Life.—The park constitutes one of the finest bird sanctuaries in Eastern Canada and being on one of the principal routes of migration to and from the northern breeding areas, is much frequented by whistling swan, Canada geese and allied genera as a resting place during flight. Pheasant, quail, and many other species of feathered wild life, find in the park and its environs a home and a refuge. Of fur-bearing animals muskrat were most numerous. Driven to the ponds on account of low water on the marshes, great activity in building was observed. On one pond, alone, about two hundred muskrat houses were counted at one period of the season. To prevent overcrowding, authority was granted to permit the trapping of 4,000 muskrat.

Measures designed to arrest erosion of the beach at Point Pelee were undertaken during the year. All buildings and rustic structures were repaired and painted and the park grounds maintained in a clean and tidy condition. Exceptionally heavy motor traffic necessitated a great deal of work in keeping the main road in good shape throughout the season.

ST. LAWRENCE ISLANDS NATIONAL PARK

Thirteen islands and a mainland reservation in the Thousand Islands region of the St. Lawrence river comprises the St. Lawrence Islands National Park. This unique area was made use of by approximately 15,000 people during the year under review, including numerous camping, picnic, excursion, and fishing parties.

A staff of part-time caretakers is maintained to supervise these island parks, all of which areas are kept in a clean and tidy condition. The islands are much frequented by campers during the summer months and many transient visitors find enjoyment in a brief sojourn. Endowed by Nature with much scenic beauty, facilities for the convenience of tourists have been added, including suitable landing wharves at the larger islands, pavilions, and campers' stoves. Considerable clearing has been done also to make the islands more attractive for walking and sight-seeing.

The great number of people who annually take advantage of the opportunity afforded them by these island parks of enjoying life in beautiful surroundings is convincing proof of the need of such facilities for recreation and rest. Bathing in the cool waters of the St. Lawrence is of course one of the principal attractions, particularly during the hot weather of July and August.

The island parks are game sanctuaries and all wild life is fully protected.

FORT ANNE NATIONAL PARK

Visitors to Fort Anne National Park at Annapolis Royal, Nova Scotia, during the year numbered approximately 17,000, while those shown through the museum numbered 11,668, a decrease of 1,659 compared with the figures for last year. Many people of note in all walks of life found an opportunity of visiting the park during the year and a number of organized parties of school children, with their teachers in attendance, included a trip to the park in their curriculum. Everything possible is done locally to stimulate the interest of the young people in the history of their country and to encourage trips of this kind for their educational value.

Touching the work of the fiscal year just closed, one important event took place in the unveiling of the tablet "To commemorate the last garrison of this Fort which was furnished by the 76th (Hindoostan) Regiment under the command of Lieutenant George Wedderburn, 1854."

A memorial also was completed (although not unveiled as yet) to perpetuate the memory of Captain Paul Mascarene, who mounted the first British guard following the capitulation of the fort, 1710.

Contributions to the museum during the year included a curious document, a "broadside"—printed apparently at Boston, Massachusetts, in the year 1773—describing a wonderful occurrence on the fifteenth of May of that year, when, it is said, the sun was darkened and the day became night for three hours, from nine to twelve a.m., at "Annapolis Royall in Nova Scotia." Another valuable relic deposited in the museum was the key to No. 2 powder magazine (Bastion de Berry), the genuineness of which has been well authenticated.

An honorary superintendent, who acts also as the curator of the museum, is responsible for the management of the park and enforcement of the regulations. Minor improvements and general maintenance of grounds and buildings constituted the major portion of the work undertaken during the year under review, apart from the important work of the dissemination of information to visitors concerning the history of the fort and its grounds.

FORT BEAUSEJOUR NATIONAL PARK

The events connected with this historic spot form an important chapter in the history of the Maritime Provinces. Fort Beausejour was built in 1750-51 on a promontory overlooking Chignecto bay, commanding a splendid view of the sea and the country surrounding the fort, and was one of the most important strongholds of the French on the isthmus. In 1755 British troops under Colonel Monckton launched a successful attack against the fort and later renamed it Fort Cumberland in honour of the Duke of Cumberland, second son of George II. The fortifications were enlarged and strengthened by the British. During the American Revolution of 1776 the defenders of the fort withstood a siege by the Eddy rebel forces. In the conflict of 1812-14 the fort was garrisoned and the defences repaired, but was abandoned later as a military position and not until the present century was its preservation urged. In 1926 the site was set aside as a historic park under the Department of the Interior.

That the people of New Brunswick and the Maritime Provinces generally have a lively sense of the significance of their heritage in Fort Beausejour National Park is amply attested by the numbers that assemble there from all parts, a pilgrimage which includes many students of Canadian history from all parts of the Dominion, the United States, and elsewhere. During the fiscal year covered by this report no less than 12,000 persons visited the park, a figure slightly in excess of that for the corresponding period, 1930-31. In developing Fort Beausejour National Park the department has largely confined the work to preservation of the remnants of the fortifications as they existed when the National Parks Service took over the administration of the property. In pursuance of this policy certain repairs have been made to the walls of the powder magazine on the original model to prevent further disintegration, and also the earthworks. For the comfort and convenience of visitors modern facilities have been provided, including the erection of a pavilion and rest rooms; the construction of walks and placing of direction markers at vantage points to objects of special interest. The property, which has been suitably fenced, adjoins the highway between Amherst, Nova Scotia, and Sackville, New Brunswick, and is easy of access for motorists. Monuments also have been erected to commemorate the associations with the fort of de la Vallière, Governor at Tonge's Island, and to the Yorkshire colonists who, among others, early settled in the province. Four of the original guns of the fort have been acquired or donated and now mount four of the five bastions which comprised the original earthwork embattlements.

Unemployment Relief

Pursuant to the Unemployment and Farm Relief Act, 1931, and the Unemployment and Farm Relief Continuance Act, 1932, appropriations amounting to \$875,100 were passed by Order in Council for expenditure on works in the National Parks of Canada offering the maximum of employment.

The preparation of a suitable program necessitated careful consideration as to ways and means of accomplishing the maximum amount of essential works at a minimum cost in materials, in order to give effect to the policy of the Government to employ as many men as possible. In view of the desirability of undertaking only works of permanent benefit to the parks, it was necessary to canvas the situation thoroughly. The work of organization was completed in August and a start was made in September. As the majority of the works—consisting of the erection of buildings and bridges and repairs to existing structures, surveys, road construction, clearing right of way, and delineation of park boundaries—were of an engineering character, responsibility for carrying on operations was placed in the hands of the Chief Engineer of the National Parks Service, who made Banff, Alberta, his temporary headquarters for the winter.

It should be stated that for the purpose of recruitment of locals and transients the undertakings were divided between two classes of unemployed: (1) persons actually resident in or adjacent to any one of the parks, and (2) transients and single men from the larger urban centres, e.g., Winnipeg, Prince Albert, Saskatoon, Edmonton, Calgary, and Lethbridge, returned men in either case being given the preference. As shown in the table on page 6 of this report, 4,354 men (local and transient) were given employment during the period commencing September 15, 1931, and terminating March 31, 1932.

A medical service was inaugurated to provide for treatment of the men in illness or accident. The Park medical officers at Banff and Jasper respectively attended to cases within reasonable distance of these centres and camp medical officers were engaged at Waterton Lakes, Prince Albert, and Riding Mountain National Parks, and one at each end of the Banff-Jasper Highway. At Elk Island, Yoho, and Kootenay National Parks and on the Golden-Revelstoke Highway (Big Bend) special arrangements were made with local medical practitioners for treatment of the men when, and as, required. Field hospitals likewise were established in the majority of camps where the men were treated for minor cases of illness or injury. In more serious cases arrangements were made with hospitals in the nearest urban centres for the care of the men without cost to the person concerned, the charge in all such cases being defrayed out of the unemployment appropriation.

In the interest of the health of the men particular attention was paid to sanitary arrangements at all camps.

As indicative of the character of the projects carried out under relief measures, some of the major works undertaken have been noted below:—

Banff National Park

Banff-Calgary road: Widening and improving.

Banff-Lake Louise road: Widening and improving.

Stoney-Squaw Mountain road: Clearing and construction work.

Secondary Roads: Widening and improving.

Banff Townsite: (a) Construction of cement sidewalks; (b) new bathhouse, Upper Hot Springs; (c) Repairs and improvements to various Government buildings.

Delineation of Park boundaries: Clearing and surveying.

Jasper National Park

Jasper-Yellowhead Highway: Bridge and trestle construction; road widening; rip-rap work and rock excavation and grading.

Jasper (East) Highway: Widening and grading; Snaring river, crib protection; tote trail construction; rock crib filling.

Miette Hot Springs Road: Rock excavation, clearing and general construction work.

Maligne, Pyramid and Cavell roads: Clearing and burning brush.

Jasper Townsite: Drilling and blasting rock; general improvement work.

General: Improvement to bridge approaches, including building forms; loading and hauling gravel; pouring cement.

Kootenay National Park

Dolly Varden Creek Bridge: Permanent surfacing with asphalt.

Hawk Creek to Intermediate Camp: Road revision and widening.

Banff-Windermere Road: Clearing out brush; protection work on roads and to bridge approaches; crib work.

Building Construction: (a) Erection of bunkhouse at Radium Hot Springs; (b) bridge over Sinclair creek, east of Sinclair canyon replacing old bridge.

Road connecting Sinclair Canyon with Columbia Valley Road: Revision of and widening various sections; general widening along whole road where required.

Yoho National Park

Stephen-West Boundary Road: (a) Construction of a truss bridge of two 95-foot spans and trestle bridge over Kicking Horse river, west of Misko, B.C., and dismantling old bridges; improving alignment of approaches; (b) redecking bridge over Kicking Horse river at Field, B.C.

Kicking Horse Canyon: Improvements to road including widening in rock cuts.

Yoho Road Switchback: New cribbing and rock filling.

Emerald Lake Road: Clearing and burning of debris on right of way and preparing timbers for replacing bridge over Emerald creek; filling at site of new bridge.

Cemetery Road: Filling and renewal, also replacement of old bridge over Cemetery creek, and completing fill for approaches.

Waterton Lakes National Park

Townsite: Improvements to existing streets and lanes; sidewalk construction; improvements to drainage.

Pincher Creek and Cardston Roads: (a) New bridge over Crooked river and 500 yards of road diversion; (b) resurfacing road; construction of two new culverts and repairs and extensions to four others; (c) construction of rock retaining wall at junction of the two roads and extensive work in general clean-up of right of way.

Campsite: (a) Construction of two comfort stations and installation of septic tanks; (b) clearing out brush and removal of rock and debris and levelling grounds.

Akamina Road: (a) Clearing right of way to the Alberta-British Columbia boundary; (b) widening on a large scale the existing road, including rock excavation and construction of rubble walls;

(c) construction of culverts and improvements to existing ones; (d) removal of bridge below Oil City to straighten road.

Elk Island National Park

Sandy Beach and South Gate Roads: (a) Surfacing and improvements generally, brushing and burning debris; (b) construction of section of South Gate road; (c) brushing out and clearing Park areas and buffalo meadows.

Prince Albert National Park

Rabbit-Meridian Road: Location surveys; clearing right of way and disposal of debris.

Prince Albert Highway: Maintenance and improvements, including grading, gravelling and cleaning up forest debris as a fire protection measure.

Camp Grounds: Enlargement of grounds, involving clearing, levelling and surfacing; construction of roads and culverts and ditching approaches; construction of fences.

Delineation of Park Boundaries: Clearing and grubbing 20 feet wide.

General: Construction of tote road to aeroplane landing field (1.5 miles); erecting permanent camp buildings including kitchen, dining hall, and bunkhouse at Waskesiu Lake.

Riding Mountain National Park

Clear Lake-Dauphin Road: Clearing and grubbing right of way and disposal of debris from Clear Lake to the north boundary of the park.

Clear Lake-Norgate Road: Grading and surfacing; construction of trestle bridge over Dead-Ox creek and excavation for new water channel.

Clear Lake Campsite and Townsite: Excavations for drainage system and laying of pipes; construction of filtering tank for waste water, and eight shelters; construction of ice-house; all streets cleared and stumped, with some gravelling.

Delineation of Park Boundaries: Clearing and grubbing 20 feet wide.

Clear Lake Townsite: Surveyed; superintendent's residence, excavation for cellar and construction of foundation; superstructure under way and nearing completion.

Golf Course Club House: Excavation for foundation and log work completed; interior finishing under way and nearing completion.

Townsite Road: Rebuilding and grading.

General: Extensive areas cleared around the townsite, lake shore, and golf course; additional clearing to provide a fireguard adjacent to Clear Lake; large area brushed out for a distance of fifteen miles along the lake shore, and back from the water front for varying distances; drainage of swamp areas in the townsite, also filling and levelling for recreation purposes; relocation of main park telephone line and other lines of communication.

Banff-Jasper Highway

Lake Louise End: Clearing right of way 40 feet wide, 20.66 miles; stumping and grubbing 30 feet wide, 6.29 miles; grading (involving some blasting) 1.79 miles; tote road constructed, 16.25 miles; side ditching, 1,700 feet; culverts constructed, 15; erection of four permanent 50-man camps, lumber and log construction.

Jasper End: Clearing right of way 40 feet wide, 20.8 miles; stumping and grubbing 30 feet wide, 9.7 miles; grading, 4.9 miles; construction of abutments for bridge over Whirlpool river; tote trail construction; erection of four permanent 50-man camps, lumber and log construction.

Golden-Revelstoke Highway

Dominion's Section: Clearing, blasting, and grading right of way; construction of bridge over Sullivan river, three 95-foot spans (all bridge timber, decking, etc., sawn at park sawmill near the site); river protection work, 4,000 feet.

Migratory Birds Convention Act*Revised Statutes of Canada, 1927*

On August 16, 1916, a treaty was executed at Washington, D.C., between the United States of America and Canada, the provisions of which were ratified and given the force of law, by Act of the Parliament of Canada during the session of 1917.

Object.—Protection of certain migratory birds in Canada and the United States of America.

Administration.—The Minister of the Interior is responsible to Parliament for fulfilment of Canada's Treaty obligations. The Commissioner of National Parks is responsible to the Minister for the administration of the statute, and the Supervisor of Wild Life Protection is technical adviser and chief executive in the enforcement of the Regulations.

PROTECTION OF MIGRATORY BIRDS

Speaking generally, the year 1931 was unsatisfactory in point of view of weather conditions. A mild winter and a snowfall below average, followed by a spring and summer with low precipitation, were conditions which made for drought throughout the major portion of the belt frequented by waterfowl.

The plains of Manitoba, Saskatchewan, and Alberta constitute the principal breeding grounds of wild duck which migrate from the South in the spring of the year. Intensive cultivation and other causes have contributed in some measure to a lowering of the water levels in recent years and while permanent lakes and other large bodies of water are not susceptible to the influence of settlement to any serious extent, the situation is such that shrinkage of reservoirs of water is particularly apparent during periods of drought. Depend-

ence upon an ample rainfall to provide the necessary surface waters for duck and other waterfowl has given conservationists much cause for anxiety and but serves to emphasize the importance of the legislation enacted for the protection of migratory birds during the breeding season.

During the year under review, the widespread absence of duck in any numbers was particularly noticeable throughout the southern portion of the three provinces mentioned and fully 90 per cent of the watered areas of southern Saskatchewan were dry. In the northern districts conditions appear to have been more satisfactory, notably north and west of Edmonton, although observers state the duck were not present in the numbers hoped for.

Conditions were investigated by the Chief Migratory Bird Officer for the Western Provinces, with whom was associated an official from the United States Biological Survey. The Government of the United States, on receiving the report of its official, by Presidential proclamation cut down the shooting season in that country to one month from three and a half months, to which, under the treaty, they were entitled. In Canada reciprocal action was taken—Alberta shortening the shooting season to two and a half months in the northern part of the province, and to two months in the southern portion. Saskatchewan cut the season to one month and Manitoba to six weeks in the settled areas of the province.

An attempt was made to determine the influence of the drought throughout the prairie region. With the co-operation of many hundreds of voluntary observers, the forecast given below was prepared and mapped last September treating of twenty-two species of wild duck known to frequent these areas, and indicating the likely effect of the drought upon the numbers of each species:—

<i>Species</i>	<i>Forecast</i>
Mallard	Will be badly affected.
Black duck	Will not be affected.
Gadwall	Will be very seriously affected.
Baldpate	Will be quite seriously affected.
Green-winged teal	Will be affected but not badly.
Blue-winged teal	Will be badly affected.
Shoveller	Will be badly affected.
Pintail	Will be affected but not very seriously.
Wood duck	Will not be affected.
Redhead	Will be very badly affected.
Canvas-back	Will be very badly affected.
Greater scaup duck	Will not be affected.
Lesser scaup duck	Will be badly affected.
Ring-necked duck	Will not be affected.
American golden-eye	Will not be seriously affected.
Barrows' golden-eye	Will not be affected.
Ruddy duck	Will be badly affected.
Buffle-head	Will be badly affected.
Old squaw	Will not be affected.
American scoter	Will not be affected.
White-winged scoter	Will be quite seriously affected.
Surf scoter	Will not be affected.

This information was published widely in Canada and the United States. The forecast was closely checked during the hunting season, and the only modification that seemed necessary was that the mallard alone was not so seriously affected as at first expected.

In addition to the invaluable assistance rendered by voluntary observers, the most sympathetic interest and lively help and co-operation was displayed in the work of the wild life division by the provincial game departments, the responsible officials of the Hudson's Bay Company; members of the Royal Canadian Mounted Police, and officers of the Dominion Lands Administration of the department.

The Chief Migratory Bird Officer for Ontario and Quebec undertook the usual patrols in connection with the bird sanctuaries on the north shore of the gulf of St. Lawrence and a staff of caretakers and temporary assistants were responsible for the protection of bird life on this coast. The Chief Migratory Bird Officer for the Maritime Provinces performed like duties covering the territory under his jurisdiction. The Chief Migratory Bird Officer for Western Canada was occupied very largely in connection with emergency measures arising out of the severe drought, mention of which has been made already. During the winter he spent a short time studying the food habits of the mergansers (fish-eating duck) of British Columbia. Bird sanctuaries were established



Great Blue Heron.

during the year, as follows: Carillon island, Argenteuil county, P.Q.; Shoal Harbour, British Columbia; Esquimalt lagoon, British Columbia; and an area comprising 475 acres, bordering Big and Long Ponds at Grand Harbour, Grand Manan, N.B., known as the Grand Manan (New Brunswick) Bird Sanctuary.

Prosecutions.—Pursuant to enforcement of the Act, sixty-seven prosecutions were instituted by Dominion officers and sixty-three convictions resulted.

Permits and Licences.—During the year permits and licences were issued for the following purposes: collection of birds for scientific purposes, 262; possession of birds for propagating purposes, 625; capture of birds for propagating purposes, 14; destruction of certain birds when proven to be seriously menacing agricultural, fishery, or other resources, 198; collection of eiderdown, 2; special

permits, 1; taking birds for banding purposes, 129; practising taxidermy, 70; to shoot geese and brant in Shelburne, Queens, and Halifax counties, Nova Scotia, in the open season as provided by law (1930-31), 1,598.

Bird Banding.—Records of bird banding in Canada, which are kept by the wild life division, disclose much interesting information and are the only exact source of knowledge concerning bird migrations. Banding throughout Canada is done for the most part by voluntary workers, and 8,026 records of birds banded were received during the year.

Publicity Information.—Departmental distribution of pamphlets amounted to 25,945 copies, and to acquaint the public with the shooting seasons and related bird protection matters, 7,004 copies of the Act; 16,009 abstracts from the Act, and 45,381 posters, were distributed.

Lectures.—The dissemination of knowledge relating to bird life was promoted by the delivery of numerous lectures and by assisting lecturers in their work by the loan of lantern slides to the number of 5,022.

Game Conferences.—The department was represented at the following meetings, which dealt with scientific and conservation questions of importance: in October, 1931, the Forty-ninth Stated Meeting of the American Ornithologists' Union, at Detroit, Michigan, and in December, the Eighteenth National Game Conference, held under the auspices of the American Game Protective Association, at New York.

The following changes were made in the Migratory Birds Regulations during the year:—

British Columbia.—The open season for ducks, geese, brant, coots and Wilson's snipe was made two weeks earlier in a portion of the Eastern District. There was a minor change of a few days in the Western District.

Alberta.—The open season for ducks, geese, coots, rails and Wilson's snipe was cut to two months in southern Alberta, and to two and one-half months in northern Alberta.

Saskatchewan.—The Province of Saskatchewan was divided into two zones. The regular season was cut one month, and the daily bag limit for ducks and geese was reduced. A possession limit instead of a seasonal bag limit was provided for these birds. The season for ducks, geese, coots and Wilson's snipe was later reduced by an emergency regulation, applying throughout the province, to one month.

Manitoba.—There was an emergency regulation changing the duck season for 1931 to six weeks in the southern part of the province.

Nova Scotia.—The season for ducks and geese in Colchester county was made the same as that in Cumberland county, and the daily bag limit on ducks throughout Nova Scotia was reduced from twenty-five to fifteen.

Prince Edward Island.—The season for geese, brant, rails and coots was made to coincide with that for ducks, and the daily bag limit on ducks was reduced from twenty-five to fifteen.

GENERAL WILD LIFE

The wild life division of the National Parks of Canada has been actively co-operating with the Bureau of Animal Population, Department of Zoology and Comparative Anatomy of Oxford University, with respect to the relation of the snowshoe rabbit to the fur industry.

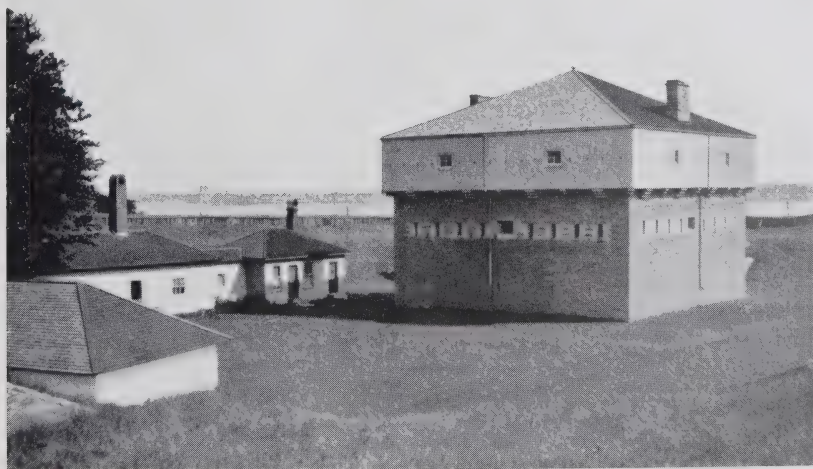
The snowshoe rabbit—so called because of its broad hind feet—is also known as the northern varying hare on account of the phenomenon of its change

of colour from reddish-brown in summer to white in winter. It is a well known fact that the snowshoe rabbit experiences cycles of abundance and of scarcity, and since many other species of fur-bearing animals depend largely upon this animal for food, fluctuation in these others occurs as the more or less direct result of the rabbit cycle. The phase of the cycle tends to vary in different parts of the country and because of the economic value of fur it is desirable that all possible information should be gathered concerning the occurrence of these cycles.

The Department of Zoology and Comparative Anatomy of Oxford University is devoting considerable attention to the problem from the standpoint of its purely scientific interest and economic value, and the wild life division of the National Parks of Canada is collaborating with the University in its investigations. To that end the National Parks Service has inaugurated a system of questionnaires whereby all likely sources of information are being reached and the results tabulated. Fur companies, taxidermists, game officers and others are rendering enthusiastic co-operation in a study of the question. The ready response from all parts of Canada to requests for information is significant and gratifying.

Historic Sites and Monuments

During the past year good progress was made with the acquisition, preservation, and marking of national historic sites throughout the Dominion, and the commemoration of public services of outstanding personages connected with the early history of Canada.



Blockhouse and Officers' Quarters, Fort Wellington, Prescott, Ontario.

These sites are selected and recommended for attention by the Historic Sites and Monuments Board of Canada, an honorary advisory body, which is comprised of a number of recognized authorities on Canadian history. The present personnel of the board is as follows: Chairman, Brigadier General E. A. Cruikshank, LL.D., F.R.S.C., F.R. Hist., Ottawa, Ont.; His Honour Judge F. W. Howay, LL.B., F.R.S.C., New Westminster, B.C.; J. Clarence Webster, M.D., D.Sc., LL.D., F.R.S.C., Shediac, N.B.; J. B. Harkin, Commissioner, National

Parks of Canada, Ottawa, Ont.; Marechal Nantel, B.A., B.C.L., C.R., Montreal, P.Q.; Professor Fred Landon, M.A., F.R.S.C., London, Ont.; Professor D. C. Harvey, M.A., F.R.S.C., Halifax, N.S.; Secretary, G. Wilford Bryan, National Parks of Canada, Ottawa, Ont.

Over nine hundred sites have been under review by the board since the work was inaugurated in 1919, and of this number 268 have been recommended as worthy of commemoration. To date 190 of these sites have been marked by the erection of memorials. An artistic design of bronze tablet is used for this purpose which carries appropriate historic data in concise form pertaining to the site marked or the event commemorated. In most instances a standard in the form of a field-stone cairn, large boulder, or other design of monument is erected to carry the tablet but at some sites it is affixed to a public building.

Sites Marked

The following memorials were erected during the fiscal year 1931-32:—

Jean Paul Mascarene, Annapolis Royal, N.S.—A cut stone monument with tablet was erected in Fort Anne Park to commemorate the long, arduous, and faithful service of Jean Paul Mascarene (1684-1760), a French Huguenot in the army of Britain, who for forty years served with the garrison at Fort Anne where he mounted the first guard, 6th October, 1710.

Port Toulouse, St. Peters, N.S.—A cairn with tablet was erected adjacent to the road leading to the wharf and opposite the lockmaster's house on the canal reserve to mark the site of the fort and trading post built by Nicolas Denys in 1650. It was destroyed by British troops under the command of Sir William Pepperrell in 1745, re-occupied by the French in 1748 and evacuated in 1758.

St. Peters Canal, St. Peters, N.S.—A tablet was affixed to the Fort Toulouse cairn to record the events associated with the canal connecting St. Peters bay and Bras d'Or lakes, which was commenced in 1854 and completed in 1869. This canal follows the portage of the old French trading days and materially shortens the distance to the eastern coasts of Cape Breton.

Fort Nerepis near St. John, N.B.—A cairn with tablet was erected on a small plot of land, donated by Mr. Edward Bates, at the intersection of the Saint John-Fredericton highway and the road to Woodman's Point to mark the site of an ancient Indian fort which was strengthened in 1749 by Charles Deschamps de Boishebert and used by the French for several years in their operations against the British.

Beaubears Island near Newcastle, N.B.—A cairn with tablet was erected adjacent to the Newcastle-Fredericton highway, opposite Beaubears island. This island served as a concentration camp for refugee Acadians, 1756-1759 and was established by their protector Charles Deschamps de Boishebert.

Mallard House, St. John, N.B.—A bronze plate was affixed to the outer wall of the Royal Hotel, which stands on the site of Mallard House, facing Germain street, to mark the place where the first Legislature of New Brunswick met in February, 1786.

Lachine Canal, Lachine, P.Q.—A cairn with tablet was erected on the canal reserve at the intersection of the Montreal-Ottawa highway and the road to La Salle to commemorate the events connected with the construction of the Lachine canal which was commenced in July, 1821, opened in 1824, and completed in 1825.

Grenville Canal, Grenville, P.Q.—A cairn with tablet was erected in a small park adjacent to the Grenville-Carillon highway to commemorate the events associated with the Grenville canal which was designed and constructed by the Royal Engineers during the period 1819-33.

Carillon Canal, Carillon, P.Q.—A cairn with tablet was erected on the canal reserve adjacent to the Grenville-St. Andrews highway to commemorate the events associated with the Carillon canal which was commenced in 1826, completed in 1833 and enlarged between 1871 and 1882 by the Royal Engineers.

Temiscouata Portage, Cabano, P.Q.—A cairn with tablet was erected on a small plot of land donated by Mr. William Purcell on the site of Fort Ingall, which lies just east of Cabano, adjacent to the Caldwell road, to mark the old Temiscouata portage used by the first settlers of the country on the overland route between Acadia and Quebec.

Battle of Lacolle near Lacolle, P.Q.—The cairn erected in 1927 to commemorate the events connected with the engagement which took place at Lacolle in March, 1814, was demolished in consequence of a diversion of the highway, and rebuilt on a site provided by the Provincial Government at the intersection of the St. Jean-Rouses Point highway with the Lacolle-Knowlton road.

Lord Sydenham and Sir Charles Bagot, Kingston, Ont.—A cut stone monument with two tablets was erected on the grounds of the Kingston General Hospital in recognition of the eminent public services of Charles Edward Poulett Thompson, Baron Sydenham (1799-1841) and Sir Charles Bagot (1781-1843.)

Pointe au Baril, Maitland, Ont.—A cairn with tablet was erected on a small plot of land donated by Mr. Herbert Barber, adjacent to Provincial Highway No. 2, at the east end of the village of Maitland, to mark the site where the last French ships of war that navigated lake Ontario were built.

Fort Mississauga, Niagara-on-the-Lake, Ont.—A tablet was affixed to the wall of the stone gateway entrance to commemorate the events connected with this fort which was built in 1814 for the defence of the Niagara frontier.

Dundas Street, near Dundas, Ont.—A cairn with tablet was erected on a small plot of land, adjacent to the Governor's road, which was donated by Mr. W. J. Woodley, to mark the military road and commercial highway between lake Ontario and the river Thames, built to promote the settlement of the province. It was laid out and constructed by the Queen's Rangers in 1794-95 by order of Lieutenant Governor Simcoe.

Normandale Furnace, Normandale, Ont.—A tablet was affixed to the outer wall of the Fish Hatchery building to commemorate the events connected with this furnace which was founded, in 1818, by Samuel Mason. It was operated until about 1853 and was an important factor in the early economic and industrial development of this country.

Officers and Seamen, Royal Navy, Amherstburg Navy Yard, Amherstburg, Ont.—A stone monument with two tablets was erected in Waterworks park to mark the site of the British naval station for lakes Erie and Huron (1796-1813) and to commemorate the officers and seamen of the Royal Navy and Provincial Marines killed in action, and their comrades who saw service on these waters in defence of Canada in 1812-14.

Churchill, Manitoba.—A cairn with tablet was erected on Battery point to commemorate the discovery of Churchill in 1619 by the Danes. In 1689 a fort was built there by the Hudson's Bay Company which was destroyed by fire during the same year. It was rebuilt by the company in 1717 and for nearly two hundred years was its most northerly post on the bay and the starting point of many Arctic explorations.

Rocky Mountain House, Alberta.—A cairn with tablet was erected on a small plot of land donated by Mrs. M. A. Brierley, covering part of the North East quarter of Section 17, Township 39, Range 7, West of the 5th Meridian, to mark the site of the post built in 1799 by the North West Company. It was the wintering place of David Thompson in 1800-1, 1801-2 and 1806-7, also his starting point in 1807 for the discovery of the Columbia river. The post remained in operation until 1875.

Collins Overland Telegraph, Quesnel, B.C.—A cairn with tablet was erected in a small park situated between Front street and the Fraser river to commemorate the events connected with the Collins Overland Telegraph scheme of 1865-66, whereby it was proposed to connect America and Asia by telegraph and cable across Bering strait.

Yukon Gold Discovery, Dawson City, Y.T.—A tablet was affixed to the outer wall of the Administration Building to the memory of the indomitable prospectors and miners who paved the way for the discovery, in 1896, of the rich gold fields of Yukon Territory.

Preservation Work

Preservation and other development work was carried out at the following sites:—

Louisbourg Fortress, near Louisburg, N.S.—Further progress was made with the development scheme decided upon some years ago at this site. Roads previously constructed were surfaced and a new stretch built along Rue d'Estrees. Additional excavations were made at the citadel and hospital, and all exposed walls repointed and in some cases rebuilt. Special attention was paid to the easterly half of the citadel, which comprised the Governor's quarters and the chapel where the remains of Duc d'Anville are supposed to have been interred. Charred portions of the original chapel flooring were discovered but no signs of a grave were located. Maintenance work was carried out on both the north and south casemates. Excavations were also made at the Queen's gate where some of the original walls were uncovered.

Fort Beausejour, near Aulac, N.B.—Further improvements were made to the grounds, including the painting of the fence, mounting of cannon on the southeast and west bastions, and the erection of markers at La Coupe dry dock and Abbe de Loutre's dyke.

Martello Tower, Saint John, N.B.—Repairs were carried out to the structure, including the coping of the firing step, pointing of inner walls and replacing the main floor. A bronze plaque was also affixed to the outer wall of the structure.

Fort Lennox, Ile-aux-Noix, Quebec.—Extensive improvements were made to that portion of the officers' quarters used as a museum, which included replacement to floors and repairs to walls and ceilings. Repairs were also made to the arched roof at the main entrance, and to the ceiling in the upper storey of the men's barracks.

Fort Wellington, Prescott, Ont.—An old cannon which was located on the embankment surrounding the fort was raised and suitably mounted near the museum. Repairs were carried out on the palisades where a number of the original posts had deteriorated; the blockhouse was repainted and other improvements made to the buildings and grounds.

Acquisition of Sites

Control of the following sites, recommended by the Board for marking, was also obtained:—

Bloody Creek Engagements, near Bridgetown, N.S.—Mr. Milledge Rice, Bridgetown, donated a plot of land, adjacent to the highway leading to Annapolis Royal, on which to erect a memorial to commemorate the engagements which took place there in 1711 and 1757.

Chambly Road, near St. Hubert, Quebec.—The Department of National Defence granted permission for the erection of a memorial on their property at the entrance to the St. Hubert airport, adjacent to the Montreal-Chambly highway, to mark the site of the first important highway in Canada.

First Paper Mill, St. Andrews East, Quebec.—Permission was obtained from the municipal authorities to place a memorial in a small park near the town hall, and adjacent to the Montreal-Ottawa highway, to mark the site of the first paper mill in Canada.

Fort Ste. Therese near Chambly, Quebec.—Mr. Pierre St. Antoine donated a plot of land adjacent to the new highway from St. Jean to Chambly on which to place the memorial marking the site of Fort Ste. Therese.

Crawford Indian Purchase, Kingston, Ont.—The Department of National Defence granted permission to affix a tablet to the gateway at the entrance to Tete du Pont Barracks to commemorate the treaty made between the Crown and the Mississauga Indians in 1783.

Combat at McCrae's House near Chatham, Ont.—Mr. Frank Parker donated a plot of land adjacent to the River road leading to Chatham on which to erect a memorial to commemorate the events connected with the engagement which took place there on 15th December, 1814.

Burlington Heights, Hamilton, Ont.—Permission was obtained from the Board of Park Management to place a memorial in Harvey Park to commemorate the events which took place on these heights during 1813-14.

Capture of Schooners "Tigress" and "Scorpion," Penetanguishene, Ont.—The Provincial Government granted permission for the erection of a memorial on the Hospital grounds at the north end of Fox street to commemorate the events connected with the gallant capture of these United States warships on September 3-5, 1814.

Treaties of Niagara, Niagara-on-the-Lake, Ont.—Permission was obtained from the Niagara Historical Society to affix a tablet to the outer wall of the Niagara Historical Museum to commemorate the treaties concluded with the Indians in 1781 and 1784.

General Strange's Column, Edmonton, Alta.—The Provincial Government granted permission for the erection of a memorial on the grounds adjacent to the new Administration Building to commemorate the operations of the Alberta Field Force during the Rebellion of 1885.

APPENDIX

The Alpine Club of Canada*(Notes from the report of the Club-house Committee)*

The club-house was open from June 20 to September 14, 1931. The attendance held up well, considering the prevailing conditions, and the fact that the annual camp was held at a point within easy reach of Banff naturally assisted in bringing out a goodly number of members.

The total number of guests registered was 389, visitors reporting from various points as follows:—

British Columbia	40	British Isles	21
Alberta	159	British Possessions	1
Saskatchewan	28	United States	94
Manitoba	19	Belgium	3
Ontario	19	Lithuania	1
Nova Scotia	4		

As in the previous winter, two double cabins were left equipped for out-of-season parties, and twenty-six parties, totalling ninety-one individuals, made use of these facilities.

The building program was completed with the erection of a further single cabin, making a total of thirteen cabins, and the staff-quarters hut—a four roomed building. Many useful and interesting additions also were made to the library.

The twenty-sixth Annual Camp of the club was held in Prospectors' valley in Kootenay National Park, a short distance from the Eagle's Eyrie, from July 20 to August 3. While much of the climbing was done from the Fay Hut plateau, successful ascents were made of mounts Hungabee, Wenkchemna, Neptuak, where one party made the traverse, and Deltaform from the Main Camp. On two occasions the two-day trip over the passes was negotiated and expeditions to Kaufman lake also were popular. Several parties crossed the Opabin pass.

Variety of access to Camp was possible, and parties arrived either by Wenkchemna pass, Opabin pass, or the rough trail from Marble canyon. The majority left by way of Wenkchemna and Moraine lake.

Visitors at the Annual Camp included a number from England, Scotland, and Belgium, in addition to strong contingents from the United States of America and from several of our own provinces. Altogether 124 were accommodated under canvas, and among that number there were representatives in attendance from The Alpine Club (England); French Alpine Club; Belgian Alpine Club; American Alpine Club; Royal Geographical Society; Appalachian Mountains Club; and the Mazamas.

Twenty-six candidates in eight parties successfully passed the qualifying test for active membership in the Club by ascents of mounts Neptuak, Little, Fay, Wenkchemna, and peaks Four and Five.

The Annual General Meeting of the Alpine Club of Canada was held at Prospectors' valley on July 29, 1931, when the work of the year was reviewed and ordinary business of the Club duly transacted. The rendezvous for the 1932 Camp was discussed, the Assiniboine region being tentatively suggested, but it was left to the executive committee to make a final decision in the matter.

LIST OF PUBLICATIONS AVAILABLE FOR DISTRIBUTION

GENERAL

Banff, Kootenay and Yoho National Parks
Elk Island National Park
Georgian Bay Islands Park—Point Pelee National Park (leaflet)
Jasper Trails
Kicking Horse Trail
Kootenay National Park and Banff-Windermere Highway
Prince Albert National Park
Riding Mountain National Park
Rocky Mountain Circle Tour (leaflet)
Pocket Guide to Waterton Lakes Park
Waterton Lakes Park

HISTORIC

Guide to Fort Anne
Guide to Fort Chambly
Guide du Fort Chambly
Guide to Fort Lennox
Guide du Fort Lennox
Guide to Fort Wellington
Story of Sir Alexander Mackenzie's Rock

MIGRATORY BIRDS

Migratory Birds Convention Act and Regulations
Attracting Birds with Food and Water
Lessons on Bird Protection
Loi et Règlements concernant les Oiseaux Migrateurs
Maisons d'Oiseaux et leur occupants
Leçons concernant la Protection des Oiseaux
L'art d'attirer les Oiseaux

COPIES OF THE ABOVE MAY BE SECURED ON APPLICATION TO
THE COMMISSIONER, NATIONAL PARKS OF CANADA,
DEPARTMENT OF THE INTERIOR,
OTTAWA, CANADA

THE NATIONAL PARKS OF CANADA

(Eighteen in number with a total area of 12,059 square miles)

Park	Location	Date established	Area in square miles	Characteristics
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,585-00	Mountain playground containing the two famous resorts, Banff and Lake Louise. Massive ranges, upper slopes bare and worn, or glacier crowned; lower slopes covered with luxuriant forests and flowered alplands; glacier-fed lakes. Wild deer, goat, sheep, elk, etc. Recreations—alpine climbing, riding, swimming, golf, tennis, motoring, skiing, tobogganing, snow-shoeing, skating, curling.
Buffalo.....	Eastern Alberta, near Wainwright.	1908	197-50	Fenced enclosure; home of the Federal government buffalo herd. Over 6,000 buffalo, also moose, deer, elk, yak and hybrids.
Elk Island.....	Central Alberta, near Lamont.	1911	51-00	Fenced enclosure, containing over 1,000 buffalo, also moose, elk, and deer.
Fort Anne.....	Nova Scotia..... (Annapolis Royal).	1917	31 (acres)	National Historic Park—Site of early Acadian settlement of Port Royal; museum containing interesting relics of early days.
Fort Beausejour....	New Brunswick, near Sackville.	1926	59 (acres)	National Historic Park—Site of old French fort erected middle of 17th century. Renamed Fort Cumberland in 1755 by British; original name was later restored.
Georgian Bay Islands (including Flowerpot island reserve)	In Georgian Bay near Midland, Ontario.	1929	5-37	Thirty islands in Georgian Bay, Beausoleil, largest of the group, is a popular camping resort. Fine bathing beaches, beautiful groves of trees, varied bird and plant life. Flowerpot island, at head of Bruce peninsula has interesting limestone formations and numerous caves.
Glacier.....	Southeastern British Columbia on summit of the Selkirk range.	1886	521-00	More massive formation of the old Selkirk range; luxuriant forests, alpine flower gardens. Centre for alpine climbers. Illecillewaet and Asulkan glaciers and valleys; Nakimu caves, Marion lake, Rogers and Baloo passes.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200-00	Immense mountain wilderness, rich in historical associations. Numbers of unclimbed peaks; glaciers, snow-fields, canyons, lakes of wonderful colouring; Athabaska valley, Maligne lake, Mount Edith Cavell; Miette hot springs; big game sanctuary. One of the finest golf courses on the continent.
Kootenay.....	Southeastern British Columbia along Banff-Windermere highway.	1920	587-00	Park extends five miles on each side of Vermilion-Sinclair section of Banff-Windermere highway. Deep canyons, Iron Gates, Briscoe range, Sinclair canyon, famed Radium Hot Springs. Bear, deer, caribou, and Rocky Mountain sheep.
Mount Revelstoke...	Southeastern British Columbia on the summit of Mount Revelstoke.	1914	100-00	Nineteen mile drive up Mt. Revelstoke affording panoramic views of the Columbia and Illecillewaet valleys, Clach-na-Cuddin ice-field, lakes Eva and Millar. Game sanctuary and winter sports resort.

THE NATIONAL PARKS OF CANADA—*Concluded*

Park	Location	Date estab- lished	Area in square miles	Characteristics
Nemiskam.....	Southern Alberta, near Foremost.	1922	8.50	Fenced animal reserve, the home of over 400 antelope.
Point Pelee.....	Southern Ontario on lake Erie.	1918	6.04	Most southerly mainland point in Canada. Stopping place of many migratory birds; summer resort and bird reserve; unique flora. Recreational area.
Prince Albert.....	Central Saskatchewan, north of Prince Albert.	1927	1,869.00	Forest country of northwestern Canada, birch, spruce, jack-pine poplar; lakes and streams; moose, deer, bear, beaver and inter- esting bird life. Excellent fish- ing, northern pike, pickerel and lake trout; fine white sand beaches, ideal camping grounds.
Riding Mountain.....	Southwestern Manitoba, west of lake Winnipeg.	1929	1,148.04	Rolling woodland country in western Manitoba dotted with several beautiful lakes. Natural home of big game including one of the largest herds of wild elk in Can- ada. Fine bathing and camping, summer resort; government golf course.
St. Lawrence Islands	In St. Lawrence river between Morrisburg and Kingston, Ontario.	1904	180.8 (acres)	Thirteen Islands among the Thous- and Islands in the St. Lawrence river. Recreational area, camp- ing, fishing.
Waterton Lakes.....	Southern Alberta ad- joining Glacier park in Montana, U.S.A.	1895	220.00	Canadian section Waterton-Glacier International Peace Park. Mount- ains noted for beauty of colouring; lovely lakes, picturesque trails; waterfalls, snow peaks, trout fish- ing, camping resort; government golf course.
Wawaskesy.....	Southeastern Alberta...	1922	54.00	Antelope reserve, as yet unde- veloped.
Yoho.....	Eastern British Colum- bia, on west slope of Rockies.	1886	507.00	Rugged scenery on west slope of Rockies; Kicking Horse valley; lofty peaks, large number with permanent ice-caps or glaciers; famous Yoho valley with numer- ous waterfalls, one over 1,200 feet in height. Natural bridge, Emerald lake, lakes O'Hara and McArthur.

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Canada, National Parks
Publicat

DEPARTMENT OF THE INTERIOR, CANADA

HON. THOMAS G. MURPHY, Minister

H. H. ROWATT, C.M.G., Deputy Minister

NATIONAL PARKS BRANCH

J. B. HARKIN, Commissioner

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Annual report

National Parks of Canada

Report of the Commissioner

FOR THE
YEAR ENDED MARCH 31

1932/1933



OTTAWA
J. O. PATENAUDE
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1934

DEPARTMENT OF THE INTERIOR, CANADA

HON. THOMAS G. MURPHY, Minister

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NATIONAL PARKS BRANCH

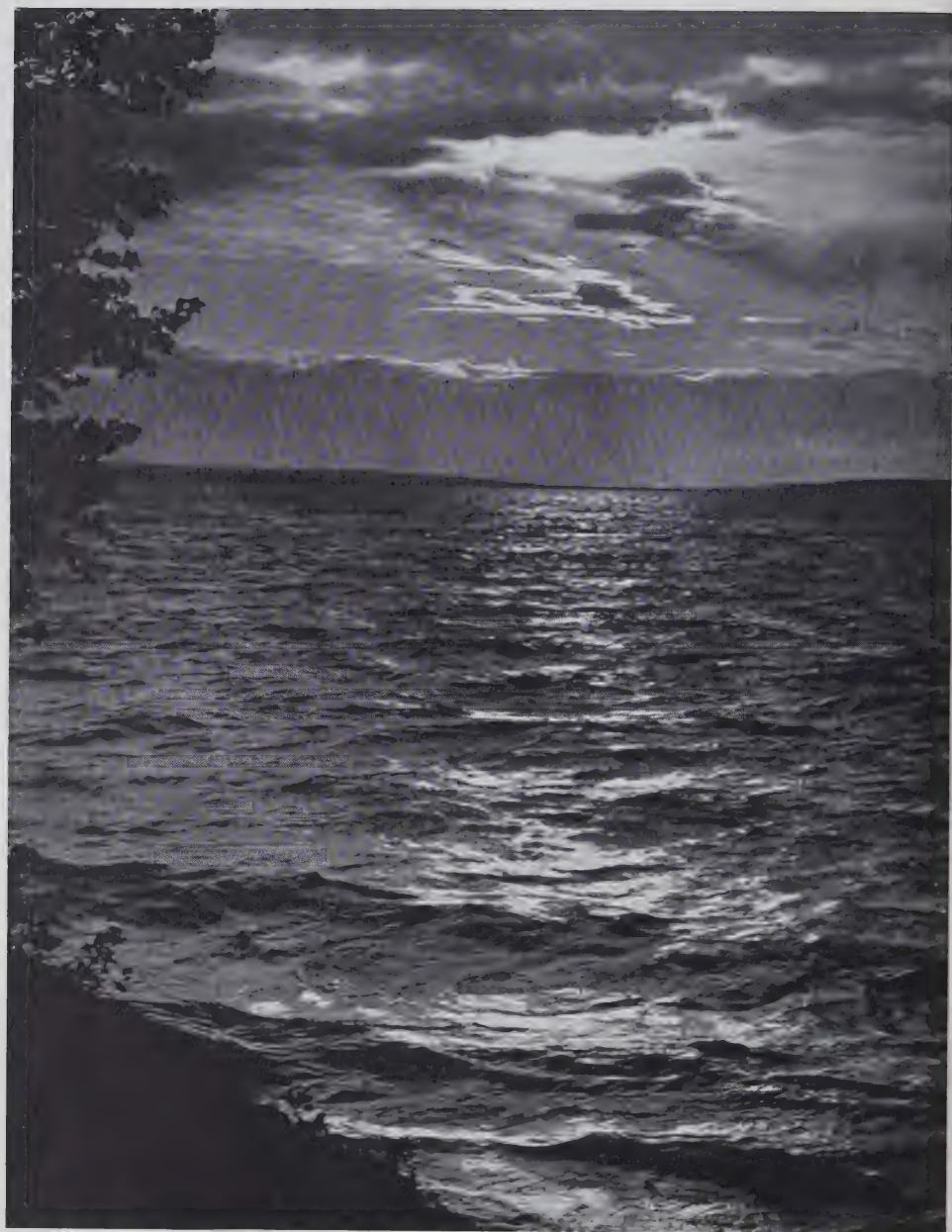
J. B. HARKIN, Commissioner

National Parks of Canada

Report of the Commissioner

FOR THE
YEAR ENDED MARCH 31
1933

OTTAWA
J. O. PATENAUDE
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1934



Sunset on lake Waskesiu—Prince Albert National Park, Saskatchewan.

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

THE YEAR IN REVIEW

The fiscal year 1932-33 compared not unfavourably with any corresponding period in the history of the National Parks System. Tourist attendance for the year was comparable to, if somewhat lower than, the record established the preceding year. Revenues were well up to the average for several years past. Construction, because of the need for rigid economy, was limited to essential works and maintenance but a great deal of necessary development work was accomplished in the National Parks as a measure of unemployment relief, to cover which special appropriations were authorized during the year.

Forest fire control; wild life protection; acquisition, preservation, and marking of historic sites; landscape and architectural work; fish culture and restocking of park waters; propagation of game animals in semi-captivity (fenced enclosures), constitute some of the major duties of the National Park Service.

Excellent work was accomplished by the Government information bureaux at Banff and Waterton Lakes National Parks, a seasonal feature much appreciated by the travelling public. A similar service was inaugurated at Riding Mountain National Park early in the fiscal year covered by this report. A total of 22,958 inquiries was dealt with by the bureaux during the tourist season of 1932.

An event of much interest occurred during the year in the formal dedication of Waterton-Glacier International Peace Park, an act sponsored by the peoples of two distinct nations who are nevertheless united on the common ground of a great faith in the cause of peace and who have symbolized in the creation of this International Peace Park their firm belief in the continuance of that concord, the existence of which has endured between them now for more than a century.

NATIONAL PARK VISITORS

The tourist business of Canada has been rated as one of the country's most important assets; hence, it is not wholly irrelevant here to speculate as to the influence exerted by the National Parks System in the development of this latent trade. Few people will tour without an objective and because of this fact the role obviously of National Parks as an institution in the economic life of the country has been that of a beacon or focal point. Endowed by nature with outstanding and individual characteristics that command distinction for each, these great "reservoirs of nature" are equipped to satisfy the aspirations and requirements of the traveller in search of recreation and relaxation.

The closest possible contact with travel organizations in the United States and overseas has featured the policy of the National Parks Service for many years as a means of promoting tourist traffic. There is no yardstick by which the fruits of this system of publicity and reconnaissance can be closely gauged but the fact that travel to the parks has stood up so well during the period of depression indicates both the success of the methods of presentation and the satisfying attractions of the parks when once visited.

Since 1914, the year in which tourist records were first kept, the movement parkward of tourists has increased substantially, the number of visitors being 54,064 for the fiscal year 1914-15 compared with 582,350 for the fiscal year covered by this report, an increase over the nineteen-year period of more than 977 per cent. These figures bespeak the growth of National Parks tourist travel, the peak of which was attained during the fiscal year 1931-32 when a total of 616,215 tourists visited the parks. Tourist figures by parks for the fiscal year 1932-33, which reveal a decrease of only 33,865 or 5.5 per cent, compared with those for the preceding year, are reproduced in the following table:—

VISITORS TO NATIONAL PARKS

National Park	1932-33	1931-32	National Park	1932-33	1931-32
Banff.....	139,669	183,946	Mount Revelstoke.....	5,000*	6,000*
Buffalo.....	12,527	13,461	Nemiskam.....	25	52
Elk Island.....	39,165	29,986	Point Pelee.....	162,785	150,380
Fort Anne.....	14,000*	17,000*	Prince Albert.....	27,007	29,537
Fort Beauséjour.....	5,728	12,000*	Riding Mountain.....	53,103	38,329
Georgian Bay Islands.....	4,682	3,760	St. Lawrence Islands.....	15,000*	15,000*
Glacier.....	1,000*	1,000*	Waterton Lakes.....	35,334	43,391
Jasper.....	15,308	11,025	Yoho.....	17,093	18,220
Kootenay.....	34,924	43,128			
			Totals.....	582,350	616,215

*Estimated.

GENERAL PARKS ENGINEERING

Construction work under regular Parks vote was necessarily restricted during the year. The practice of economy in all departments of the National Parks Service was urged upon superintendents who co-operated by limiting expenditure to essential repairs and maintenance of services, including the following utilities (to mention the more important only): electric lighting and power plants, domestic water supply, sewer systems, telephone systems, mineral hot springs bathhouses, museums, and other educational or municipal activities.

GOLDEN-REVELSTOKE HIGHWAY

Construction of all that portion of this projected road from Donald to Canoe River, both in B.C., known locally as the Big Bend Highway, was undertaken by the Dominion Government pursuant to arrangements made in 1929 with the Government of British Columbia which undertook on behalf of the province to construct all that portion of the road from Canoe River to Revelstoke, B.C. Clearing and general road work was commenced on the Dominion section in November of that year and has proceeded each season since that time. At the close of the fiscal year under review, of the Dominion section of 78 miles, 56 miles of the right of way had been graded and 42 miles thereof surfaced with gravel. The work included the construction of several large bridges, a great number of culverts, and much ditching.

UNEMPLOYMENT RELIEF

Appropriations totalling \$699,000 were authorized during the year for expenditure in National Parks as a measure of unemployment relief, of which amount \$634,158.53 or more than 90 per cent was expended. These funds enabled the Department not only to utilize a large number of unemployed men (the principle followed being that of undertaking only works which offered employment for the maximum number of men and demanded the minimum outlay for materials and equipment) but supplied the means for their maintenance during the period of such employment. Strict attention was paid to the welfare of the men temporarily committed to the care of the Department in respect to accommodation, quality and quantity of food, and clothing where necessary. Medical officers were responsible, in the larger camps, for the care of the sick or injured and in all camps arrangements for hospitalization were made with the local authorities in case of serious illness or injury.



Constructing bridge over Caribou creek, Big Bend highway, British Columbia.

Completion of the new bathhouse at the Upper Hot Springs in Banff National Park and continuation of the survey and construction of the Banff-Jasper highway were the outstanding undertakings of the spring and summer months. Initiated as an unemployment relief scheme in the autumn of 1931, work on the highway continued until March, 1932, when operations were temporarily suspended. An arrangement was made then with the Government of Alberta whereby the province undertook to bear fifty per cent of the cost of construction, less certain Dominion expenditures on account of heavy grading equipment. Road construction was resumed early in May, 1932, and the work was continued throughout the summer and autumn. The distance from lake Louise in Banff Park along the proposed route to its junction with the Edith Cavell road in Jasper Park is approximately 140 miles, and of this stretch

nearly 40 miles have been graded and in part surfaced. There was also undertaken during the year a reconnaissance survey of the entire route; also a location survey as far as Bow pass at the Banff end and to a point above the junction of Sunwapta and Athabaska rivers at the Jasper end. Satisfactory progress was made in clearing further right of way and in the construction of culverts and bridges.

The winter program of unemployment relief included clearing and maintenance work on the Banff-Jasper highway, and bush clearing and other improvements in the following parks: Banff, Jasper, Waterton Lakes, Yoho, Elk Island, Prince Albert, Riding Mountain, and Point Pelee—work entailing the minimum outlay for equipment and material. Elsewhere in this report a more detailed statement appears of the work accomplished.

In the case of single, homeless unemployed, the men were quartered and fed at Government expense on a monthly basis, irrespective of whether, on account of weather conditions, they were required to work or not. On the other hand, needy married men, resident in certain National Parks, were given employment on a relief quota basis at an hourly rate of pay sufficient for the maintenance both of themselves and their families. Under the circumstances, the two classes are for obvious reasons dealt with individually in the computation reproduced in the following tabulation, which indicates the number of *man-days of relief* extended to single, homeless men, and the number of *man-days of work* found for park residents during the fiscal year ended March 31, 1933:—

STATEMENT RESPECTING UNEMPLOYMENT RELIEF IN NATIONAL PARKS
Single, Homeless Men

Region	Man-days of Relief	Compensation (Wages, food, clothing and medical services)	Material and Supplies	Total
		\$ cts.	\$ cts.	\$ cts.
P.C. 1307/32: P.C. 1854/32— Banff-Jasper Highway.....	114,098	179,568 09	70,253 04	249,821 13
P.C. 2162/32— Manitoba 200-man Camp—Riding Mountain Park..	8,909	7,910 22	2,019 34	9,929 56
P.C. 2358/32: P.C. 52/33 Single, Homeless Men—				
Banff Park.....	19,964	17,567 07	5,662 98	
Jasper Park.....	35,063	30,701 56	7,280 56	
Waterton Lakes Park.....	8,631	10,052 13	2,965 13	
Elk Island Park.....	13,518	13,586 32	4,663 77	
Prince Albert Park.....	93,022	97,756 81	31,718 98	
Riding Mountain Park.....	121,660	94,038 37	15,159 84	
Point Pelee Park.....	13,422	12,481 72	3,751 43	
	305,280	276,183 98	71,202 69	347,386 67

Permanent Park Residents

Region	Man-days of work	Wages	Material and Supplies	Total
P.C. 2583/32: P.C. 52/33 Permanent Park Residents—				
Banff Park.....	8,686	19,697 37	1,098 37	
Jasper Park.....	2,397	4,579 63		
Yoho Park.....	566	1,386 80	259 00	
	11,649	25,663 80	1,357 37	27,021 17
Grand Total.....				634,158 53

NOTE.—Total commitments pursuant to unemployment relief in National Parks for the fiscal year 1932-33 amounted to \$643,927.95, leaving an unpaid balance of \$9,769.42 as at March 31, 1933.

ROADS, TRAILS AND TELEPHONE LINES

A modern system of all-weather roads has been the aim for many years of the National Parks Service. Satisfactory progress continues to be made with this work from year to year.

In the following table figures are given as indicating the mileage of roads, trails, and telephone lines in each park:—

MEANS OF TRAVEL AND COMMUNICATION

National Park	Roads			Trails	Telephone Lines
	Motor	Secondary	Total		
	(miles)	(miles)	(miles)	(miles)	(miles)
Banff (including Lake Louise end, Banff-Jasper Highway).....	117	18	135	621	213·25
Buffalo.....	1	30	31	.....	35
Elk Island.....	13	2	15	.....	.....
Glacier.....	9	.....	9	105·5	7
Jasper (including Jasper end, Banff-Jasper Highway).....	96	33	129	770·5	353
Kootenay.....	63	8	71	121·5	61·25
Mount Revelstoke.....	19	.....	19	35·5	17
Point Pelee.....	7	.....	7	.....	.....
Prince Albert.....	39	.....	39	267·75	129
Riding Mountain.....	59	.....	59	200	146
Waterton Lakes.....	20	14	34	222·33	57·13
Yoho.....	53	5	58	170	47·75
Totals.....	496	110	606	2,514·08	1,066·38

WILD LIFE CONSERVATION

The National Parks of Canada, aside from their value as playgrounds, hold an important place in the economic life of this country as wild game sanctuaries. While a census of wild animals enjoying free range is impracticable for obvious



Young beaver feeding in Ajawaan lake—Prince Albert National Park, Alberta.

reasons, a fair estimate of conditions is not impossible with the aid of information available from reports of park wardens who, in the execution of their duties, which include frequent patrols of a definite area, have an unrivalled opportunity of observing wild life conditions and of gauging numbers.

The steady increase in numbers of big game continued during the year under review. Rocky Mountain (bighorn) sheep, than which no other species is more characteristic of the Canadian Rockies, has responded wonderfully to sanctuary conditions and its increase in numbers is most gratifying. This interesting animal is much in demand for scientific and educational purposes and many requests are received every year from zoological societies, state and provincial governments, and educational institutions for live specimen. Several donations of this kind were made during the year. Rocky Mountain goat, another unique member of Canada's fauna, which inhabits the higher slopes and more inaccessible summits of the mountain ranges, likewise has given evidence of increased numbers. Other species reported as abundant include moose, caribou, elk, and deer—impressive evidence of the merit of a system of organized protection.

Touching bird life, the protection afforded by the Migratory Birds Convention Act and regulations made thereunder, together with enlightened provincial game laws, has borne fruit in abundance, and it is conceded that but for these timely measures, the extinction of some species, now abundant, would have resulted. A census taken of the animals in fenced enclosures as of March 31, 1933, is reproduced in the following table:—

ANIMALS IN FENCED PARKS AS OF MARCH 31, 1933

Animal	Banff Park Paddock	Buffalo Park	Elk Island Park	Nemiskam Park	Riding Mountain Park	Total
Angora Goat.....	2					2
Antelope.....		1		300		301
Buffalo.....	24	6,163	1,340		27	7,554
Domestic Cattle.....		15				15
Elk.....	28	1,057	473		25	1,583
Four-horned Sheep.....	7					7
Hybrid (cattalo).....		28				28
Moose.....		95	396		2	493
Mule Deer.....		2,500	209			2,709
Rocky Mountain Goat.....	2					2
Rocky Mountain (bighorn) Sheep.....	7					7
White-tail Deer.....					1	1
Yak.....	7	31				38
Totals.....	77	9,890	2,418	300	55	12,740

FOREST FIRE CONTROL

There was a notable freedom from bush fires in National Parks during the season of 1932. This was due to particularly favourable weather conditions and to the efficient work of the fire-preventive organizations.

Apart from Riding Mountain National Park the fire loss for all parks was the lowest on record with a total of 37 fires and a burned-over area of 48 acres only. In the case of Riding Mountain National Park certain local conditions made control a matter of some difficulty. With a total of 20 fires, an area of 2,293 acres was burned over during the season, of which only 182 acres carried timber of commercial value.

Details of the number and extent of the fires, together with cost of suppression, are embodied in the following table:—

GENERAL FIRES

National Park	Fires	Area burned	Cost of extinguishing	
	No.	Acres	\$	cts.
Banff.....	8	2 $\frac{3}{4}$	84	53
Jasper.....	12	2 $\frac{1}{2}$	53	71
Yoho.....	2	$\frac{1}{2}$	12	37
Glacier.....	2	$\frac{1}{2}$	36	82
Elk Island.....	2	$\frac{1}{2}$	4	25
Kootenay.....	2	$\frac{1}{2}$	7	55
Mount Revelstoke.....	1		33	15
Prince Albert.....	3	42	39	30
Waterton Lakes.....	2	$\frac{1}{2}$	124	76
Riding Mountain.....	20	2,293	388	71
Total.....	54	2,340 $\frac{5}{8}$	785	15

RAILWAY FIRES

Jasper.....	2	$\frac{1}{2}$	5	50
Grand Total.....	56	2,341 $\frac{1}{2}$	790	65

HISTORIC SITES AND MONUMENTS

Monuments were erected during the year, on the recommendation of the Historic Sites and Monuments Board, which advises the Department in matters historical, on six sites in different parts of Canada. Preservation work was continued and eight additional sites of historical importance acquired. The work is described in detail in the latter part of this report.

LANDSCAPE AND ARCHITECTURE

The Architectural division of the National Parks Service is responsible for translating into practice the theory of town planning and landscape work as applied to National Parks. Designs for public buildings are prepared in this office. The division also passes upon all plans and specifications for privately owned buildings designed for residential or commercial purposes, bearing in mind always that harmonious relation to local physical characteristics is not the least of a number of important considerations that have to be weighed in every case.

The following examples are typical of public buildings for which detailed drawings and specifications were prepared during the year under the supervision of the chief architect of the Branch:—

Banff National Park.—Dwelling for resident caretaker at Upper Hot Springs bathhouse; additions to Cave and Basin bathhouse; general layout of sites for automobile bungalow camps at lake Louise and at the town of Banff respectively.

Jasper National Park.—General layout of site for automobile bungalow camp and location of buildings in connection with the same.

Waterton Lakes National Park.—New office building at golf course, general layout and buildings for automobile bungalow camp.

Elk Island National Park.—Warehouse building; boathouse.

Prince Albert National Park.—Community and museum building; bath-house; recreation shelter; entrance building and registration office; preparation of plans of Clare Beach subdivision.

Riding Mountain National Park.—Community and museum building; bath-house; recreation shelter; stables and garage buildings; portal at south entrance to park; caretaker's residence at east gateway (Norgate entrance); preparation of plans for layout of building lots in secondary business area.



Typical example of log and stone construction—Administration building and Information Bureau, Riding Mountain National Park, Manitoba.

Point Pelee National Park.—Registration office at park entrance; bath-house.

St. Lawrence Islands National Park.—Pavilion at Cedar island.

PUBLICITY

The Publicity Division of the National Parks Service actively directs attention to the National Parks through the agency of illustrated lectures and descriptive literature featuring the attractions of individual parks, news bulletins, and by means of motion pictures and radio broadcast. It is significant of the value of this program that tourist figures reflect with few exceptions a steady yearly increase in the number of visitors to the National Parks.

During the fiscal year 1932-33, a total of 128 lectures was delivered on educational tours of western points in Canada and the United States, supported by a showing of 804 motion picture films. Motion picture films shown in Eastern Canada numbered 2,476 besides a total of 575 lantern slides. Seven hundred and forty films and 3,522 lantern slides were loaned to educational institutions.

The motion picture film library was augmented by the addition of 25,467 feet of negative film and 84,207 feet of positive film. New films completed for release include: *Border Trails*; *Here and There with the Birds of Canada*; *Hunting without a Gun*; *Prairieland to Fairyland*; *Strange Doings in Beaverland*; *With Lure and Line in Jasper*. The following photographic material was distributed free of charge during the year: prints, 9,113; enlargements, 329; special prints, 240. One hundred new negatives covering a variety of subjects were added to the still life section of the library.

To cope with the increasing demand for literature, more than 125,000 copies of different publications were printed, including the following: *Annual Report of the Commissioner of National Parks*, 3,000; *Guide to Fort Anne, Annapolis Royal, N.S.* (sixth edition), 25,400; *Prince Albert National Park* (fourth edition), 25,440; *Waterton Lakes Park* (fourth edition), 25,265; *Riding Mountain National Park* (second edition), 25,100; and *National Parks of Canada in Ontario* (first edition), 25,000. Distribution of literature involved a total of 109,543 official publications, in addition to more than 10,000 copies of descriptive matter issued under provincial or other auspices. A large number of articles touching the National Parks were prepared by request for publication in leading periodicals, newspapers, and magazines, and more than 250 half-tone cuts were released on loan for illustration purposes. Three special educational features were arranged and exhibited at Ottawa, Montreal, and Washington, D.C., respectively, which included displays of mounted wild animals indigenous to the parks, oil paintings, coloured photographic transparencies, and framed photographic enlargements.

REVENUE

Receipts from public utilities and other sources of direct revenue in National Parks amounted to \$202,723.67 for the fiscal year ended March 31, 1933, compared with \$216,246.07 for the preceding year, a decrease of 6¼ per cent.

BANFF NATIONAL PARK

In alpine scenery of rugged charm and silent challenge; in beauty that finds, for some, its supreme expression in the waters of lake Louise; in the health-giving properties of its mineralized waters; and in the opportunities afforded for recreation and sport, Banff National Park might be rightly termed a Mecca of mountain resorts. Returns for the fiscal year under review indicating, as noted earlier in this report, fewer visitors, are nevertheless encouraging and betoken, it is hoped, an early return of better times.

Inasmuch as Banff forms the eastern link of "The Three Park Unit" comprising Banff, Kootenay, and Yoho parks, eastbound tourists via Kootenay and Yoho are credited to Banff Park along with all westbound tourists. For the year under review the following particulars of traffic are of interest when compared with the figures for the corresponding period last year:—

VISITORS TO BANFF NATIONAL PARK

— —	Motor Vehicles		Passengers	
	1932-33	1931-32	1932-33	1931-32
Westbound				
Via East Gate (Banff National Park).....	30,983	37,521	99,211	137,694
Eastbound				
Via Radium Hot Springs Gate (Kootenay National Park).....	6,338	6,893	19,015	20,816
Via Leancoil Gate (Yoho National Park).....	2,242	2,184	6,443	6,436
Tourists for Banff by rail (estimate).....			15,000	19,000
Totals.....	39,563	46,598	139,669	183,946

The Cave and Basin bathhouse was well patronized, 34,222 bathers passing through the turnstile to the pool during the year, compared with 47,709 last year. The decline in patronage was no doubt due in a measure to the attraction of the new bathhouse at Upper Hot Springs which was opened officially on June 27, 1932. Bathers at the Upper Hot Springs bathhouse during the fiscal year 1932-33, numbered 45,570, compared with 27,292 the preceding year, which represents an increase of 18,278. The Cave, adjacent to the Cave and Basin bathhouse, was visited by 20,958 persons according to the attendance register installed there for recording purposes.



Upper Hot Springs pool at Banff—Banff National Park, Alberta.

At Tunnel Mountain campgrounds the year was one of increased activity, returns indicating that 6,536 motor vehicles were registered. These carried 23,573 campers, who were provided with accommodation during the tourist season, contrasted with 6,394 vehicles and 23,068 tourists covering the corresponding period last year.

Licences and Permits.—A total of 14,034 licences and permits was issued during the fiscal year 1932-33, compared with 15,984 for the preceding year, including—transient automobile licences (with camping privileges), 12,757; park resident automobile licences, 388; chauffeur licences, 157; hotel and rooming house licences, 140; auto livery licences, 83; business licences, 55, and timber permits, 66.

Public Health.—The community experienced a gratifying immunity from communicable disease, six cases only of juvenile disorders being reported during the year. In addition to the usual milk and water analyses, which are made at stated intervals, cattle in the park to the number of 190 head underwent the tuberculin test in November, 1932, and were given a clean bill of health.

Mosquito Control.—A total of 3,161 gallons of oil was distributed over marsh areas and land-locked waters with satisfactory results. Further useful work was done in the way of extension of drainage ditches.

Roads and Bridges.—Maintenance and necessary repairs marked the principal road activities of the year. Flood conditions in June endangered Carrot Creek bridge, which was saved only by timely reinforcement of its abutments. In the same month the timber bridge at the crossing of the Cascade river was washed away in flood. In November this structure was replaced by a 90-foot steel truss bridge (a span of the old bridge over the Bow river) erected at a greater elevation on a site about 300 feet downstream.

Works initiated and carried out by the Dominion Government in National Parks as a measure of unemployment relief are dealt with elsewhere in this report. However, some of the more important undertakings at Banff Park include completion of the new bathhouse at Upper Hot Springs; widening and straightening of the Upper Hot Springs road, Banff-Calgary road, and Banff-Castle road. Good progress also was made with the construction of the new scenic Stoney Squaw road.

During June and July, 158,441 gallons of road oil were distributed, all the principal streets in Banff and the main motor roads in the park totalling eighty-four miles of thoroughfare, being so treated and conditioned.

Campgrounds.—At all campsites in the park shelters were repaired or extended; and general supervision maintained to ensure a proper degree of cleanliness and order.

Building Permits.—Seventeen building permits with an estimated property value of \$11,285, were issued during the year.

Forest Fires.—Only eight general fires were reported during the year, all being brought under control without serious damage to forest cover.

Banff Museum, Zoo, and Animal Paddock.—A total of 11,293 persons visited the museum contrasted with 10,700 for the corresponding period last year, a significant increase under present conditions. The Zoo as usual attracted large numbers of people. Animals on exhibition included the following: 1 polar bear, 2 grizzly bear, 1 black bear, 1 cinnamon bear, 1 mountain lion, 1 Canada lynx, 3 timber wolf, 3 coyote, 3 badger, 3 marten, 2 gopher, 3 porcupine, 1 muskrat, 1 ermine, 1 kit fox, 2 raccoon. Specimens of bird life included: 2 great horned owl, 7 Canada goose, 4 golden eagle, 2 crow, 4 fan-tailed pigeon, 1 ring-necked pheasant. At the Paddock 40,668 visitors viewed the animals on exhibition, comprising herds of 24 buffalo, 28 elk, 7 yak, 2 Angora goat, 2 Rocky Mountain goat, 7 Rocky Mountain sheep, 7 four-horned sheep.

Donations of Wild Life.—The following animals were captured during the year and donated as indicated:—

Rocky Mountain sheep: State of New Mexico, U.S.A., 3 pairs; Milwaukee Zoological Society, 2 pairs; Philadelphia Zoological Society, 1 pair; University of Saskatchewan (Saskatoon), 3 head; and Province of Quebec, 3 head.

Beaver: Calgary Zoological Society, 1 pair.

Predatory Animals.—Control of predatory animals forms an important division of park management. In this connection the wardens were responsible for the destruction of 5 mountain lion and 14 coyote during the fiscal year.

Fish Hatchery.—Fish fry from Banff Fish Hatchery were distributed as follows: Park Waters—Lock Leven trout, 419,680; cutthroat trout, 383,100; rainbow trout, 72,380; total, 875,160. Provincial Waters—Cutthroat trout, 565,100; rainbow trout, 55,000; speckled trout, 65,900; salmon trout, 1,138; total, 687,138.

Recreation.—The Annual Indian Days' Celebration and Sports which are customarily held in July, were postponed until August 19-21 to synchronize with the reunion at Calgary of members of the Alaska-Yukon Pioneers Association. The daily parade of Indian chiefs was as usual a great attraction. Sports were held at the race track each afternoon and on the sports ground at the Banff Springs hotel in the evenings.



Ice cave in Victoria Glacier, Lake Louise—Banff National Park, Alberta.

The Annual Winter Carnival was held from February 8 to 11, inclusive. The attendance was most gratifying, although for reasons of economy the duration of the event was reduced to four days from the customary seven days. The Annual Bonspiel of Banff Curling Club was held during Carnival week. Weather conditions were ideal and all events were closely contested.

JASPER NATIONAL PARK

A very decided improvement took place in tourist travel to Jasper National Park with 15,308 visitors during the year under review compared with 11,025 for the corresponding period last year, an increase of 4,283, or nearly 39 per cent. Of this number, 13,105 travelled by rail and 2,203 by automobile; 12,095 were from different places in Canada, 2,340 were from the United States; and 873 from overseas. With one exception only, these figures compare favourably with any year since the establishment of a record of tourist travel.

The townsite of Jasper, the headquarters of the park, was the scene of considerable municipal activity throughout the year. Increasing traffic necessitated constant supervision of all boulevards and streets which were graded and oiled, as required. Many young trees were planted to replace decayed or defective growth. Sections of the town without a permanent water supply were accommodated with a temporary summer service and seven new service con-

nections were made to the permanent water main, making a total of 274 connections. The water supply, which is obtained from Cabin lake, has been ample for all requirements. The town is equipped with a satisfactory sewer system. Sixteen additional connections were made to the sewer during the period covered by this report, the system now having a total of 149 connections. Garbage collections are made at regular intervals throughout the year. Electric power for domestic and town purposes was supplied as usual from the Jasper plant of the Canadian National Railways. The total number of connections was 336. A number of improvements were made to the distributing system, including additional wiring and relocation of three transformers.

Licences and Permits.—Fifteen hundred and twelve (1,512) licences and permits were issued during the year compared with 533 for the corresponding period last year, the outstanding items being: transient automobile licences, 720; park resident motor vehicle licences, 264; chauffeur licences, 108; auto livery licences, 33; building permits, 30; timber permits, 70.

Roads and Bridges.—All roads in the park were maintained in good condition and given dressings of dust-layer oil at suitable intervals during the tourist season. Certain sections of Pyramid Lake road were widened; Medicine Lake tote road was graded and improved in anticipation of increased motor traffic as a result of throwing open for fishing the waters of Medicine lake and Maligne lake, respectively. At the Medicine Lake end of this tote road an area was cleared of timber and rock to provide parking accommodation for thirty automobiles. Astoria River bridge, the safety of which was endangered in consequence of a rock slide, was overhauled and repaired. Other bridges were repaired and painted. About sixty standard road signs were erected at railway crossings, bridges, and curves, on the principal motor roads. Road work done and improvements made in the park as an unemployment relief measure are dealt with elsewhere in this report.

Trails.—Maintenance of park trails, totalling in this park 770.5 miles, constitutes an important function in forest fire control. The entire system was maintained in good condition for travel and for mobilization of fire-fighting equipment, including bridging, ditching, draining, widening, and diversions, where necessary, to obtain improved location.

Telephone System.—The entire system, comprising 318 miles of telephone line, was patrolled at regular intervals and maintained in good condition.

Fire Control.—Only twelve general fires and two railway fires occurred during the year, but due to prompt action all were suppressed with practically no damage. There were two town fires, both of which were extinguished without serious loss.

Game.—The abundance of game animals is a noteworthy feature of Jasper National Park. Rocky Mountain (bighorn) sheep, Rocky Mountain goat, moose, caribou, elk, and deer, are reported to have increased steadily in numbers notwithstanding exposure to losses from predatory animals which likewise give indication of increasing, particularly coyote and cougar. Bear of all species were plentiful. The predatory animal situation is being carefully watched.

Fish Culture and Fishing.—An event of great importance to sportsmen occurred during the year with the opening of a fishing season at the Maligne-Medicine lakes and tributary waters. The stocking of waters barren of game fish, with the results that have been obtained at Jasper Park, is an outstanding achievement and one that has not been duplicated elsewhere in Canada. In 1928 the Maligne-Medicine waters received 190,000 eastern speckled trout fry; in 1929 another 208,000, and in 1931, still another 179,000 units. Trout were

taken from the lakes in the autumn of 1929, 18 inches long and in a spawning condition. In 1930, fingerlings from natural spawn were plentiful. In the following year one rod, in three or four hours, caught fish aggregating more than 100 pounds in weight. One trout, taken in November, 1931, measured 20 inches long, 7½ inches deep, and 16 inches around the middle, and weighed more than 6 pounds. In 1932, the waters of Amethyst lake (Tonquin valley) received 46,921 Kamloops trout fry. In the same year a total of 182,690 rainbow trout fry was distributed in creeks tributary to the Athabaska, Embarras, Little Pembina, and McLeod rivers, respectively, and in the waters of Mary Gregg lake, Reflection lake, and Zanzell lake. At the close of the fiscal year (March 31, 1933), there were hatched and available for similar distribution



Brook trout taken from Maligne lake—Jasper National Park, Alberta.

41,613 eastern speckled trout fry, and 434,211 rainbow trout fry. During the year unsurpassed angling was reported throughout the season and there can be no doubt that the increase in tourist travel to the park was largely due to the excellent fishing provided by these glacial waters.

Ski-ing.—A party of ski-runners consisting of Messrs. Joseph Weiss, A. L. Withers, Vernon Jeffery, and Douglas Jeffery, left Jasper on skis early in March (1933) for the Columbia icefield by way of Athabaska river. Mount Columbia (12,294') was negotiated on skis to within 400 feet of the summit, when a blizzard sprang up and made immediate descent imperative. The return trip was made in remarkably good time via Brazeau lake, Poboktan pass, Harry McLeod pass, and Maligne lake. This was a significant exploit and one that will doubtless challenge other adventurous spirits to experience the joys of this exhilarating sport under conditions so inspiring.

WATERTON LAKES NATIONAL PARK

(Canadian Section, Waterton-Glacier International Peace Park)

The period of more than a century during which a state of peace has existed between the United States and Canada was commemorated with appropriate ceremonies on June 18, 1932, when the Waterton-Glacier International Peace Park was formally dedicated in the presence of a large and distinguished gathering, including representatives of the official life of both countries and of International Rotary.

Originated in 1931 by Rotary Clubs of Alberta and Montana in a joint annual session at Waterton Lakes National Park, the peace park idea immediately struck a sympathetic chord in both countries. This led to the introduction and passage in 1932 of complementary legislation by Congress of the United States and by the Parliament of Canada, by which means the proposal was translated into actuality.

Glacier National Park in Montana and Waterton Lakes National Park in Alberta are peculiarly adapted for the purpose of an international park. Situated side by side and complementary to each other, the parks encompass a region of the Rocky Mountains range of surpassing beauty and charm, and, together, constitute a playground of exceptional attraction from a tourist standpoint. Without impairing the autonomous right of either country in respect to administrative matters, the union in spirit of the two parks should prove a powerful force for continued good will and sound understanding between the peoples of the North American continent who, although politically separate and distinct, have many aspirations in common.

Tourists.—Although a decline is reported in tourist travel for the fiscal year 1932-33, the attendance was nevertheless gratifying. Visitors to the number of 35,334 registered at Waterton Lakes National Park during the season, compared with 43,391 for the corresponding period last year. Of this number 27,600 were Canadian tourists, 7,678 from the United States, and 46 of overseas origin.

Roads and Bridges.—Work commenced by relief labour on the Akamina road during the winter of 1931-32 was completed, resulting in marked improvement to this popular thoroughfare. Pass Creek road was further widened and dangerous curves corrected. The Main Entrance road and Pincher Creek road were repaired and two curves eliminated on the former. The Main Entrance road from the townsite to Pass Creek bridge was treated with an application of oil.

Forest Trails and Telephones.—All trails were maintained in good condition for travel by tourists and for fire protection work. Improvements were made on Saddle Horse, Bertha, Lake Shore, and Boundary trails. Hell Roaring trail also was improved and extended through a natural tunnel to Crypt lake. A bridge was erected over Red Box canyon from which a remarkably fine view is obtained. Telephone lines were maintained in good order and extensions made to Waterton bridge and Stoney creek.

Agriculture.—Approximately 85 tons of hay were cut, 70 tons of which were baled. Fifteen acres, seeded to oats, yielded 25 tons of green feed, which also was cured and baled. Grazing permits were issued for a total of 1,468 head of live stock on park lands, an increase of 238 head compared with the preceding year.

Fire Control.—Two incipient fires were extinguished with practically no damage, one in the Belly River district and the other on the southeast slope of mount Richards.

Administration.—Municipal activities in the townsite of Waterton Park included general maintenance of streets and sidewalks.

The Information Bureau was open from June 22 to September 15, and rendered the travelling public an efficient service. Visitors to the park included the Hon. Thomas G. Murphy, Minister of the Interior; the Hon. Robert Weir, Minister of Agriculture, and Mrs. Weir; Brigadier-General J. S. Stewart, M.P., and the Hon. Charles Stewart, M.P., a former Minister of the Interior.



On the trail to Bertha lake—Waterton Lakes National Park, Alberta.

Campsite.—Additional tables and benches were erected at convenient points and the camp was decidedly popular.

Recreation.—The equipment at the children's playground was repaired and painted. The grounds were as popular as ever with juveniles. At the tennis grounds, three courts were in play constantly, while a fourth was being reconditioned. By this method of rotation all four courts were kept in first class shape during the playing season. The beach at lake Linnet was as usual popular with bathers. For the protection of non-swimmers and juveniles a boom of logs was thrown across the lower end of the lake. The nine-hole golf course was maintained in good condition and satisfactory progress was made with the construction of an additional nine holes. The club-house was fenced and a ticket office erected.

Fish Culture and Fishing.—Fish fry from Waterton Fish Hatchery were distributed as follows: *Cutthroat Trout*—North fork of Belly river, 25,000; Indian creek, 5,000; Lee creek, 10,000; Crypt lake, 5,000; total 45,000. *Rainbow Trout*—South Kootenay creek, 15,000; Cameron lake, 19,860; Waterton lakes, 56,300; total, 91,160.

The park as a fishing centre has increased greatly in popularity since the more important lakes were stocked with fish, indeed this sport in Alderson lake and the twin Carthew lakes is for increasing numbers the principal attraction. A few years ago these waters were devoid of game fish and practically unknown except to the mountain climber. In 1928 Alderson lake received 10,000 cutthroat trout fry and in 1930 specimens of trout 6 to 8 inches long were observed. Fish have been taken from the water since, 10 to 14 inches in length, and weighing upwards of two pounds apiece. In 1929 Carthew lakes received 20,000 cutthroat trout advanced fry from Waterton Lakes hatchery, and when opened for fishing in August, 1932, these lakes provided excellent angling and in the space of one week nearly 1,000 fish were removed from the water.

Game.—The park abounds in wild life, including Rocky Mountain goat and sheep, also elk and mule deer. Mink, marten, and beaver were plentiful. Bear were noticeably less numerous than hitherto. Wolf and lynx were scarce but coyote were quite numerous. Bird life conditions continue to be satisfactory; blue grouse, spruce grouse and ruffed grouse all were plentiful, while prairie chicken appear to have increased in number.

YOHO NATIONAL PARK

Tourist traffic returns indicate that the park had a satisfactory year with a total of 5,792 motor cars carrying 17,093 passengers, of which number 15,006 were Canadians, and 2,087 from the United States and other countries. These figures compare favourably with those for the corresponding period last year, when a total of 18,220 passed through the park (eastbound or westbound) although a decrease of slightly more than 6 per cent resulted. It is noteworthy, however, that Canadian tourists increased from 14,654 in 1931-32 to 15,006 in 1932-33, or 2.4 per cent.

Campsites.—At the Kicking Horse campground, a caretaker was in attendance from June 1 to September 12, and during this period 977 motor cars, carrying 3,067 individuals, registered. Compared with figures for the corresponding period last year, this represents an increase of 48 in the number of motor cars over travelled roads and a decrease of 32 in the number of campers. No record was kept of the number that camped at Field and Mount Chancellor campgrounds but indications pointed to activity fully comparable with previous years.

Roads.—Forces were put to work early in May on branch road repairs, notably the widening of Yoho road through the canyon, while on the Emerald Lake road curves were reduced or eliminated and sections widened as required. The Ottertail, Yoho and Emerald Lake roads were maintained in good condition throughout the season and the two latter were treated with applications of dust-layer oil. The principal park highway, known as the Kicking Horse trail, was kept in excellent condition all summer.

Trails.—Construction was commenced of the Otterhead and Amiskwi trails and the trail between the auto road near the mouth of Emerald creek and Amiskwi river was completed. A bridge was thrown across Amiskwi river, use being made for this purpose of a bridge structure that had previously spanned the Kicking

Horse river. This makes a very satisfactory trail bridge. Yoho Valley trails and other trails used extensively by tourists were maintained and a new bridge was built over Little Yoho river below Laughing falls.

Fire Control.—For the fourth consecutive year no railway fires occurred and only a small expenditure was made in the suppression of two general fires. No damage was reported.

Game.—Moose are reported to be on the increase. Although not a deer country, mule deer were seen in considerable numbers in the western and southern districts. White-tail deer show no appreciable increase but on account of their timidity it is difficult to estimate their number. Rocky Mountain goat, elk, and bear give every indication of an increase in number.



Automobile road west of Field—Yoho National Park, British Columbia.

Fish Culture.—The distribution of rainbow trout fry from the Banff Fish Hatchery in Yoho Park waters was as follows: Emerald lake, 11,000; Cataract creek, 12,500; Sherbrooke lake, 10,000; Marpole lake, 5,000; and lower lake Oesa, 1,500. Ross lake was again closed for the season in order to give the fish another year to mature.

GLACIER NATIONAL PARK

It is estimated that not more than 1,000 tourists visited Glacier National Park during the fiscal year 1932-33. This apparent neglect of a park that abounds in mountain scenery of rare charm and wild flowers of varied beauty may be explained on the ground of inaccessibility by motor road, and lack of suitable quarters for the accommodation of tourists.

The Alpine Club of Canada held its twenty-seventh annual camp on old Glacier House lawn, the attendance at which numbered 112, including both members and guests. A résumé of the club's activities while in the park will be found in the Appendix to this Report.

Administration.—Work during the year was limited to necessary repair of roads and trails. Serious floods in 1931 completely destroyed trails and trail bridges in the upper Illecillewaet valley. Trails on both sides of the valley were repaired, the old location being followed except where large deposits of rock and gravel made diversions necessary. In the Asulkan valley the trail bridge over the river, which had been destroyed by the flood, was replaced by a new structure about fifty yards below the site of the old bridge. Maintenance work was carried out on the following trails: Beaver river, Baloo pass and Lookout, also the road to Nakimu caves.

Game.—Reports on wild life are reassuring. Moose, which have not been seen for some years, are reported on the Beaver River flats, near Mountain creek. Caribou are said to be numerous and beaver are increasing. Rocky Mountain goat and mule deer were observable in large numbers. Grizzly bear and black bear are plentiful. Feathered wild life abounds, the presence of grouse and ptarmigan, particularly, being noticeable.

Fire Control.—Three outbreaks of fire, attributable to lightning, were reported during the year but no serious damage resulted. For the fourth consecutive year no railway fires occurred.

KOOTENAY NATIONAL PARK

Distinctive for mountain scenery of great majesty, Kootenay Park is famous also for the curative properties of its mineral hot springs, whence is fed the swimming pool operated under Government supervision at Radium Hot Springs. Although there was a considerable decline in the amount of business at the bathhouse, the attendance nevertheless was satisfactory, bathers for the year under review numbering 17,908, compared with 21,086 for the corresponding period last year.



Approach to Radium Hot Springs via Banff-Windermere highway—
Kootenay National Park, British Columbia.

Travel was well maintained on the Banff-Windermere highway, a fine scenic thoroughfare which bisects the park longitudinally throughout, with 11,996 motor vehicles carrying 34,924 tourists passing through the entrance gate at the townsite of Radium Hot Springs, compared to 14,937 cars and 43,128 passengers during the preceding year. Of the total tourist traffic for the year, 73 per cent was domestic and the remainder of United States origin.

Administration.—The picturesque setting of Radium Hot Springs, coupled with the fine standard of architecture maintained for all Government buildings and private dwellings, creates a striking impression upon tourists when entering the park. The new building erected by the Royal Canadian Mounted Police, with offices, jail, and living quarters for the detachment of the force located in the park, is attractive in appearance and decidedly an accession to the townsite. Improvements made to the waterworks system included an extension to the newly established automobile bungalow camp at Radium Hot Springs. At this campsite nine cabins also were erected in the spring of 1932 and four additional cabins are in course of construction for the tourist season of 1933. The public campgrounds at Radium Hot Springs were extended to provide additional accommodation and during the season a total of 9,342 campers patronized this popular resort. Road work was confined principally to maintenance although several temporary bridges on the Banff-Windermere highway were replaced by permanent structures, or embankments and culverts.

Forest Fire Control.—The heavy snowfall of the winter of 1931-32 resulted in the presence of moisture in the ground well into the summer, with a consequent lessening of the fire hazard. Two small fires were reported but due to prompt and efficient service on the part of the warden staff, both were extinguished before any serious damage was done.

Game.—A marked increase in the number of moose was observable during the year, also in elk and Rocky Mountain sheep. On the other hand, there was a decrease in white-tail deer. In the northern areas of the park, marten and beaver were more plentiful than usual.

MOUNT REVELSTOKE NATIONAL PARK

Although adequately served by an excellent system of roads from southern and western points, Mount Revelstoke National Park has not as yet direct road communication with the east, which fact necessarily operates as a deterrent from a tourist standpoint. Visitors are drawn to the park in large numbers from British Columbia and western United States on account of its fame as a winter playground, the sport of ski-jumping being the principal attraction. No actual record of the number of visitors has been kept but conclusions drawn from careful observation warrant an estimated attendance of 5,000 persons, compared with 6,000 for the corresponding period last year.

Administration.—Maintenance of roads, and repairs to bridges and trestles, constituted the major portion of the work done in the park. The strengthening of retaining walls by replacing timber with dry rock was continued during the summer. The big "fill" commenced last season at Bride creek also was continued. Work on trails was confined to maintenance only.

Game.—Fewer deer and caribou were reported but whether this portends a decrease in number or a general migration to other fields cannot be determined at present. Bear and coyote were plentiful, while lynx have shown a marked decrease. Grouse were abundant.

Fires.—Lightning was responsible for the one and only fire during the season, and this was brought quickly under control. Very little damage occurred.

Recreation.—The Revelstoke ski-hill was further improved by the construction of a permanent take-off; the runway built up and the judges' stand repaired. The annual ski-jumping tournament, the most important event of the year, was held in February last but owing to inclement weather no records were broken. However, on another and more favourable occasion a jump of 287 feet is reported to have been negotiated by a local athlete, who thereby out-distanced by a decisive margin the world's amateur record of 269 feet, which he is credited with having established during the winter of 1931-32.

PRINCE ALBERT NATIONAL PARK

During the period under review, the close of which marks the fifth year in the history of Saskatchewan's National Park, tourist traffic registered a decline of 8.56 per cent. However, taking economic factors into consideration, a decrease in attendance was not entirely unexpected, particularly in view of the record established in 1931-32 when 29,537 tourists visited the park as against 27,007 during the fiscal year 1932-33. On the other hand, it is noteworthy that compared with the year 1930-31 when a total of 17,164 tourists entered the park, figures for the year under review represent an increase of over 57 per cent.

The Hon. H. E. Monroe, Lieutenant-Governor of Saskatchewan, who, with Mrs. Monroe, spent three weeks in the park during the summer of 1931, renewed his acquaintance with the park for a further two weeks in 1932. Other distinguished visitors included Mr. Carl Endicott, International President of Kiwanis, who visited the principal lakes. A goodwill tour of citizens from Montana and the Dakotas, sponsored by various Boards of Trade of Saskatchewan, included in their itinerary a visit to the park on July 22, 1932. The Western Canada District of Kiwanis, held its annual convention in the park August 28-30 inclusive. Delegates in attendance numbered approximately two hundred. The annual regatta, organized by the business men of Prince Albert, was held at Waskesiu lake on July 16. The weather was fine and the attendance excellent. In addition to the regular boat races, the regatta committee this year secured an important natatorial event which drew swimmers from all parts of the province.

Fish Culture and Fishing.—The biological survey, initiated by and pursued under the direction of the Biological Board of Canada during 1929 and 1930, and carried on by the University of Saskatchewan in 1931, was continued during the season of 1932 with excellent results in the matter of additional data in regard to fish life and fish food. Waskesiu lake maintained its reputation by providing good sport for the angler. Great lake trout fishing in Kingsmere lake and Crean lake continued to show improvement, particularly in the waters of the former.

Building in the residential section at Prospect Point was limited during the year to one cottage. In the business sub-division greater activity was experienced. Three stores and one hotel were completed, and a new building erected to replace one destroyed by fire in 1931. These buildings were constructed in accordance with approved plans, and conform in appearance to the high standard of architecture found in all of Canada's National Parks.

Campgrounds.—The campgrounds were extended and improved during the year as an unemployment scheme, and as a consequence the congestion experienced in previous years was absent during the tourist season of 1932. A total of 1,929 camping permits was issued during the season, the number of campers being 7,648.

Roads.—Due to an exceptionally wet summer, roads in the park underwent a severe test but withstood the wear and tear of traffic remarkably well. All thoroughfares were maintained in first class condition and many favourable

comments were received from visitors. Certain objectionable curves were reduced and widening carried out at a number of points. The main highway was kept open during the winter—no inconsiderable achievement, but necessary as maintaining the channel for bringing in supplies for the large number of men employed at the various relief camps conducted by the federal authorities in the park throughout the winter months.

Fire Control.—Only three fires occurred during the year and these were brought under control without serious damage to timber and at an expenditure of \$39.30 only—much the lowest in the history of the park. As in former years, an aeroplane patrol was inaugurated on May 20, 1932, and maintained to June 10 following, by which date the fire hazard had abated. Although tentative arrangements were made with the Department of National Defence for resumption of the service in August, circumstances rendered further patrols unnecessary.

Waterworks System.—The installation of a pure water system, which was commenced during the previous year was completed in the summer of 1932.

Licences and Permits.—The issue for the fiscal year was as follows: business licences, 114; camping permits, 1,929; miscellaneous permits, 67; sundry items, including rates and rental transactions, 89, a total of 2,199 for the year.

Game.—The natural increase of all wild life in the park, to which reference was made in last year's annual report, bears some evidence of interruption in consequence of the apparent increase in predatory animals as a direct result of the sanctuary conditions which govern throughout all National Parks. Wolves and coyotes are the two most serious offenders and the noticeable decline in the number seen during the past winter of moose, elk, and deer, particularly the latter, has given rise to some concern for their future welfare. However, the situation has been carefully considered and it is confidently expected that with the co-operation of the wardens, the balance will be eventually restored. Bird life, happily, is abundant and many species, including humming bird and goldfinch, were noted by observers at Waskesiu lake. Waterfowl also were plentiful, the increase being particularly noticeable on the waters of northern lakes in the park.

RIDING MOUNTAIN NATIONAL PARK

That "park-mindedness" has taken firm root among the citizens of Manitoba is evident from the tourist statistics of Riding Mountain National Park. March 31, 1933, marked the close of the third year since the change of Riding Mountain from the status of a forest reserve to that of a national park, an event that did much to quicken public interest in this beautiful region and one doubtless that has exercised a strong influence in drawing tourists from all parts of the country.

The course of public opinion parkward is reflected in the attendance record for the three-year period in question. Tourists to the park in 1930-31, numbered 12,028; they increased in 1931-32 to 38,329; while during the year under review (1932-33) the number was 53,103, an advance of 41,075 persons compared with the first year. Tourists imply motor traffic and the records show that motor vehicles entering the park in 1930-31 numbered approximately 6,000; in 1931-32 the number increased to 10,006, and in 1932-33 to 14,279.

Information Bureau.—Approximately 10,000 inquiries were dealt with during the tourist season and the services rendered by the Information Bureau were greatly appreciated by the travelling public.

Park Townsite.—A competition among the school children of Manitoba was held in May, 1932, for a name for the townsite at Clear lake. A number of money prizes were offered, Miss Edna Medd of Winnipegosis, winning the first prize of \$50 for "Wasagaming" (Cree for "clear water") the word chosen by the selection committee as most appropriate in the circumstances.

Licences and Permits.—There were issued during the year the following: business licences, 57; building permits, 59; camping permits, 1,040; timber permits, 1,511; hay permits, 284; grazing permits, 10; miscellaneous, 239; a total of 3,200.



The beach and promenade at Wasagaming—Riding Mountain National Park, Manitoba.

Townsite Development.—In the residential section of Wasagaming townsite there was marked activity in the building of summer homes, and improvement of existing cottages by way of remodelling, etc. There is now estimated to be a permanent summer population, on a per diem basis, in the neighbourhood of 1,000 people, although if allowance is made for change of tenancy through rental of cottages for short periods the seasonal population would approximate 5,000 or more. In the business area several new buildings were constructed and existing properties improved and extended. The principal streets of the townsite were reconstructed to proper grade and width, while progress was made with the development of secondary streets in accordance with the new subdivision plan. Landscape work, looking to enhancement of the natural attractions of the townsite, was continued throughout the season.

Road Maintenance and Construction.—Completion of the last twelve miles of the Strathclair road witnessed the inauguration of an all-weather thoroughfare from the north boundary of the park to Wasagaming. Completion of the Norgate road connects the park with Provincial Highway No. 5 and provides

a route that excels all others in the park for scenic attraction. About two miles of the main road through the townsite was finished, surfaced and given a dressing of oil.

Government Buildings.—The seasonal program included completion of the following: golf club-house, the portal at the intersection of the east boundary of the park with the Norgate road, and the addition to the Administration Building.

Campgrounds.—The Government automobile campsite had a season of increased activity. 1,040 camping permits having been issued for a total representation of 4,431 individuals, of which number upwards of 2,000 were accommodated under canvas during the month of July alone. A feature much appreciated by campers was the new ice-house, a refrigerator building equipped with 176 individual lockers for the storage of perishable food, besides which eight additional kitchen shelters did much to improve the facilities for cooking and serving meals. The sanitary system was further improved.

Park Telephone System.—A total of 150 miles of telephone line was maintained in good order. Construction work was limited to improvements to the telephone line to the Administration Building.

Fire Control.—At no period during the season of 1932 was the fire hazard as serious as in the previous year. Spring opened with normal precipitation in April, followed by drought during the first two weeks of May, but rainfall during the latter part of May and in June, coupled with the new growth, removed all danger of a general conflagration. There were twenty outbreaks of fire, eighteen in May and one each in September and October, but in every case prompt action by the warden staff resulted in the fires being extinguished with very little damage to merchantable timber. The park is divided into six districts, averaging 200 square miles apiece, each with a warden (and two assistants during fire-hazard seasons) who is responsible for the systematic patrol of his district. By arrangement with the Royal Canadian Air Force, the aeroplane patrol inaugurated during the season of 1931 was continued in 1932 with marked success as a fire preventive auxiliary.

Wild Life.—From observations of wild life in the park an increase in numbers appears to be evident but no estimate has been attempted. Game animals indigenous to the territory include moose, elk, Virginia deer, mule deer, and the following fur-bearers: beaver, muskrat, mink, otter, badger, varying hare, and weasel. Predatory animals appear to be confined to coyote, although a few lynx were observed. Bird life was abundant, all local species and migratory birds being well represented in season. Mountain bluebird were numerous and purple martin visited the park in large flocks and established themselves in the birdhouses provided for that purpose. Interesting observations were made of a heronry containing about six specimens of the great blue heron. Waterfowl frequented the park also in large numbers.

Animal Enclosure.—The herd of buffalo, numbering twenty head, transferred in November, 1931, from Buffalo National Park, has done well, the natural increase in 1932 numbering seven head. Other animals in the 320-acre enclosure comprise: moose, 2; elk, 25; white-tail deer, 1.

Fish and Fishing.—A representative of the Biological Board of Canada has undertaken at the request of this Department a series of investigations relative to the introduction of new varieties of game fish into Clear lake. Pike (*Esox lucius*), sole game fish in the lake at present, is held as likely responsible for the defeat of previous attempts to stock the lake with pickerel and lake trout. The

introduction of Kamloops trout (a comparatively deep water fish) has been recommended as one species that would have some chance of thriving by reason of its rapid and sturdy growth. In the meantime, anglers find plenty of sport in pike fishing.

Recreation.—Facilities for recreation and sport are many, and include swimming, boating, riding, hiking, tennis, golf and baseball.

Unemployment Relief.—An outline of the work done under unemployment relief measures is dealt with elsewhere in this report.

BUFFALO NATIONAL PARK

The idea of great fenced areas for the perpetuation of North American buffalo, likewise of moose, elk, and deer, species indigenous to that immense region extending westward roughly from lake Winnipeg to the eastern slopes of the Rocky mountains in Alberta, which was translated into fact in 1906 at Elk Island National Park, found renewed expression in 1907 with the creation of Buffalo National Park. The venture, as a scientific experiment for the propagation of game animals in a state of semi-captivity, has been eminently successful, while from an economic standpoint returns have fully justified the initial outlay.

On March 31, 1933, close of the fiscal year 1932-33, a census gave the number of animals in the park as follows: buffalo, 6,163; elk, 1,057; moose, 95; mule deer, 2,500; antelope, 1; yak, 31; hybrids, 28; cattle ("cattalo" experiment), 15; all told, 9,890 head. Predatory animals were not numerous and were confined to coyote, and these were scarce in the park, only three having been shot during the year.

Range Conditions.—It is becoming increasingly apparent that overcrowding and incessant close cropping have contributed much to the present difficulty of maintaining grazing facilities in the park on a level with requirements. To relieve the congestion a total of 1,221 head of buffalo was disposed of during the year. A proportion of the meat was made available for Eskimo relief in the Northwest Territories, and the remainder, together with the hides, was released for sale commercially. Pasture conditions in the main park were fair on the whole owing to an abundant rainfall and the majority of the animals came through the winter satisfactorily. The appearance of fluke (*Fascioloides magna*) led to an investigation in August by a representative of the Health of Animals Branch of the Federal Department of Agriculture. A reconnaissance was made of all watered lands in the park to identify and record areas found to be infected with certain species of snail, a mollusk that might conceivably act as the intermediate host of the parasite. The initiation of appropriate action, pursuant to recommendations submitted in this connection, is receiving attention.

Farm Operations.—The park from an agricultural standpoint is self-supporting for the most part and a surplus to the requirements of this park unit is not uncommon. In 1932 approximately 440 acres were seeded down to oats, of which 40 acres were cut as green feed. The crop from the remainder amounted to 17,095 bushels of oats. After all park requirements were satisfied there was a surplus of about 12,000 bushels available for shipment to other parks. The crop also yielded 330 tons of oat straw which was utilized as auxiliary feed for the animals. The crop of native hay amounted to 1,541 tons, in addition to which 225 tons of brome grass, western rye grass, and clover hay were harvested from areas sown to these varieties of fodder.

Fences and Telephone Lines.—Repair work in connection with the maintenance of approximately 100 miles of fence was carried on throughout the season, and all telephone lines were kept in satisfactory working order.

Fire Protection.—Approximately 140 miles of a twenty-foot fireguard (running parallel to and on opposite sides of the fence) were ploughed by teams of park horses with such additional help as was necessary. Brush that had grown up along the fence line was cut and burned, and firefighting equipment was overhauled for readiness in emergency. Fortunately no fires threatened the park.

General Maintenance.—Two small pump-houses were erected and a new well was bored for an additional water supply. Repairs were made at the incinerator and necessary painting was done. No new road work was undertaken during the year but existing roads were maintained in a satisfactory condition. Permits were issued during the year for a total of 400 cords of dry wood and for 7,500 green willow pickets.



Young buffalo bull—Buffalo National Park, Alberta.

Visitors.—A decrease of nearly 7 per cent in the number of visitors to Buffalo National Park was reported, with 12,527 for the fiscal year 1932-33, compared with 13,461 for the preceding year, made up as follows: Wainwright gate (Home Paddock), 11,445; Hardisty gate (Alexander's), 779; and Farm gate, 303. The decline in attendance is attributed to lessened travel generally rather than to a diminution of interest in the park and its work. The bathing beach and picnic grounds at Mott lake were patronized extensively during the hot summer months. A number of local organizations, and groups of juveniles from various district schools, were accommodated at the grounds during their stay in the park and the facilities for recreation there made available were much appreciated.

ELK ISLAND NATIONAL PARK

Under present world conditions, a decrease in tourist travel was to have been expected and under these circumstances it is the more remarkable that Elk Island National Park should have experienced a year of great activity in tourist traffic; should have, in fact, established a record with a total of 39,165 visitors during

the year under review, compared with 29,986 for the corresponding period last year, an increase of 9,179. These figures bear witness to the unabated interest in wild life conservation. The herds that now roam the park, comprise the following: buffalo, 1,340; moose, 396; elk, 473; deer, 209, all species being in a healthy condition.

Astotin lake, near which the headquarters of the park are located, is a beautiful body of water, roughly two and a half miles long by one and a half miles wide, containing a number of islands which furnish sanctuary for a variety of bird life, notably Crane island, which is frequented by blue heron in large numbers. The lake is a favourite resort of visitors and the facilities provided for recreation include boating, canoeing, swimming, and other sports.

Administration.—Apart from the usual patrols, the following represents some of the more important duties performed during the year: the parking area at Sandy Beach on Astotin lake was further improved; roads were maintained in first class condition; the main buffalo-proof fence and enclosures were inspected and repaired as required; thirty-four miles of boundary fireguard, and ten miles of interior fireguard, were ploughed and disked. Considerable clearing of dead timber and brush was done on both sides of the road to the south end of the park during the past winter as a measure of unemployment relief.

Harvest.—Hay was the principal crop harvested, the field yielding 400 tons of first class hay, all of which was garnered under ideal weather conditions. A fair crop of green oat feed also was harvested.

Wild Life.—Blue heron were plentiful on Crane island as usual, while part-ridge and prairie chicken have shown marked increase in number during the year. Migratory birds (waterfowl) were plentiful in season.

NEMISKAM NATIONAL PARK

This reserve was created in 1915 for the preservation of pronghorn antelope, a species of animal indigenous to the western plains of America, and threatened with extinction in consequence of the march of settlement. The present herd of antelope, numbering approximately 300 head, constitutes the increment of a herd of 42 head. The capture of the parent herd was accomplished by the simple expedient of fencing the reserve without disturbing the animals which were quite unaware of the encompassing movement. The antelope came through the past winter in good condition. It has been the practice for several years in midwinter to feed hay to the antelope when grazing conditions were not particularly good. The condition of the range made it necessary to continue the practice last winter.

Coyote are a problem. When hunters are active these animals take refuge in the park, where shooting is prohibited except by a warden or authorized person. Their presence is a menace to the antelope and as reliance cannot be placed solely on the rifle, recourse has been had to hounds trained to hunt the coyote without molesting the antelope.

WAWASKESY NATIONAL PARK

This sanctuary was set apart as an antelope reserve in 1914. The area affords both summer and winter range of excellent quality—in fact the occurrence of native grasses and medicinal plants, much sought after by antelope, would indicate that the entire region was at one time their natural habitat. The park, which is unfenced, is situate about twenty-five miles north of Medicine Hat. Bounded on the south and east by the Saskatchewan river,

the reserve is not without scenic beauty. Varying from a quarter to half a mile wide and from 200 to 300 feet deep, the gorge of the original watercourse, edged with precipitous rocks and pinnacles, assumes many beautiful and fantastic shapes.

With an abundance of good water and ample grazing facilities, the park, if fenced, would provide range for a considerable number of antelope, should occasion arise for accommodation as a result of congestion at Nemiskam National Park, or elsewhere. As the park is not fenced the taking of a census of the antelope presents such difficulties that a count has not been attempted. However, in consequence of the protective measures adopted for their preservation, concentrations of antelope in herds and groups are noticeably greater in recent years throughout the park and its environs, and this circumstance warrants the assumption of an increase in number.



Landing dock at Beausoleil island—Georgian Bay Islands National Park, Ontario.

GEORGIAN BAY ISLANDS NATIONAL PARK

Little more than three years have gone by since the Federal authorities took action to acquire for the people of Canada a number of islands in Georgian bay for National Park purposes, yet, in that comparatively short space of time, it has been made abundantly clear that the park has played no inconsiderable part in the promotion of tourist traffic. The success of a venture must be measured by the reception accorded it and in the case of the Georgian Bay Islands National Park the steady increase in the yearly attendance bears witness to the great popularity of this reservation.

In the establishment of the park the setting aside of twenty-nine islands was involved as follows: Beausoleil island, comprising 2,712 acres, opposite Penetang harbour and accessible from either Midland or Penetanguishene;

nineteen islands with an aggregate area of 93 acres, opposite Freeman township; six islands with a total of 77 acres, opposite Baxter township; and three islands, totalling 80½ acres in extent, opposite Gibson township. In addition, Flowerpot island, containing 475 acres, opposite Tobermory at the head of Bruce peninsula, has been acquired as an addition to the park.

The Georgian Bay region is justly famous as a pleasure resort, offering exceptional facilities for camping, fishing, and boating, etc. At Beausoleil island considerable development work has been undertaken to improve its natural attractions. Improvements include construction of shelters for campers with fire-places for camp cooking, and of trails throughout the island. Suitable wharves also have been constructed at which lake craft may be docked. Flowerpot island, so called because of certain geological formations resembling flowerpots in shape, features a natural harbour which has been much improved, while other improvements include wharves and cribwork. Trails also have been constructed up the face of the cliffs leading to a number of interesting caves.

Commencing with the fiscal year 1930-31, during which it was estimated that 1,000 persons visited Beausoleil island, the attendance has been most encouraging. During the fiscal year 1931-32 a substantial increase was reported, visitors at Beausoleil island numbering 2,800, and at Flowerpot island 960 were reported, making a total for the year of 3,760. During the fiscal year under review (1932-33) a more careful record was kept, and visitors to the number of 4,682 were reported, an increase of over 900 persons as compared with the corresponding period for the preceding year. This total is made up as follows: At Beausoleil island, transients, 2,500; week-end campers, 225; seasonal camping parties represented by Boy Scouts, 17; Y.M.C.A. (Canada), 275; Y.W.C.A. (Canada), 125; Y.M.C.A. (Cincinnati, U.S.A.), 40, and at Flowerpot island the attendance, including transient campers, numbered 1,500.

Wild life is necessarily limited in extent, but, in common with all national parks, the islands in Georgian bay that have been set apart for National Parks purposes constitute a game sanctuary and shooting is prohibited. Large game is not plentiful although deer occur on Beausoleil island, with an abundance of smaller game. Predatory animals do not frequent the islands in large numbers, although fox may be seen occasionally.

A warden is charged with enforcement of the National Parks regulations at Beausoleil island and the other island members of the park group, while a caretaker is responsible for fire and game protection at Flowerpot island.

POINT PEELE NATIONAL PARK

Point Pelee on lake Erie, the southernmost projection of mainland in Canadian territory (40° 54' N.), is one of three federal reservations in the province of Ontario which have been dedicated to the people of Canada for park purposes. Triangular in shape, Point Pelee is bounded on two of its sides by miles of delightful beach, and, coupled with an agreeable climate, the facilities for healthful recreation are unrivalled.

Tourist figures testify to the popularity of the park as a summer resort and it is significant that notwithstanding prevailing financial conditions a total of 162,785 tourists entered the park during the year under review, compared with 150,380 during the corresponding period last year. These figures constitute a record for travel to the park. The number of camping permits issued shows a decline from 1,071 in 1931-32 to 736 during the year under review. The decrease was experienced solely in transient (week-end) campers, the drop being from 857 to 262. Monthly (seasonal) campers, on the other hand, increased from 214 to 474.

Improvements undertaken during the year included the construction of additional shelters of artistic design, also of park tables and benches. Sanitary

arrangements were improved and an incinerator installed for the disposal of waste matter. Additional funds were provided last winter for unemployment relief, which made possible the carrying out of further important works, including widening, grading, and resurfacing of the main road through the park; cutting of channels through the marsh (a measure designed to permit of free circulation of water); willow planting for shore protection purposes; and the re-roofing of eight Park shelters. Willow planting, started in 1931 as an experiment in the prevention of erosion of the beaches by wave action, was continued in 1932, owing to the success of the initial undertaking.

Point Pelee National Park is an important bird sanctuary where wildfowl find refuge during periods of migration to and from the north. Wild duck, Canada goose, and whistling swan were plentiful. Pheasant and quail gave



Motor campsite at Point Pelee National Park, Ontario.

evidence of being on the increase and bluebird were particularly numerous in the spring. Fur-bearing animals, such as squirrel, rabbit, and raccoon, were observed in considerable numbers, there being no evidence of a decrease. Muskrat, a prolific breeder, gave indications of an increase in number and to prevent overcrowding authority was obtained to trap a maximum of 2,500. Owing to a late spring with heavy night frosts, trapping was difficult, and a catch of only 678 pelts was reported.

By permission, the Canadian National Beagle Club held its annual field day in the park in April, 1932, the event being well attended by distinguished members from many parts of Canada and the United States. Camping parties of Boy Scouts, Girl Guides, and Sea Scouts visited the park at intervals during the summer, and enjoyed the many facilities for recreation for which the park is becoming justly famous.

ST. LAWRENCE ISLANDS NATIONAL PARK

Some thirty years ago the federal authorities acquired for park purposes a number of islands in the river St. Lawrence which, though small, are yet typical of the beauty of the "Thousand Islands" archipelago generally. The movement to preserve for the people of Canada such of the islands as were unalienated met with instant public support, and as a matter of government policy the system has been extended from time to time as opportunity offered. The St. Lawrence Islands National Park, as now constituted, comprises a series of thirteen islands lying at irregular intervals in the river between Kingston and Morrisburg. A small tract of land on the north bank of the river at Mallorytown has been acquired and likewise forms part of the park group for purposes of administration.

The islands are accessible from the mainland by launch or boat and as summer resorts are most popular with campers and picnickers. Notwithstanding economic conditions no decrease in attendance was noticeable during the fiscal year 1932-33 and while no attempt was made to register visitors, it is estimated that not less than 15,000 people frequented the grounds during the season of 1932, a considerable proportion of such number consisting of campers who made a more or less prolonged stay.

Supervision of the islands by a staff of caretakers is an important and necessary administrative function. Although only on part-time duty, each caretaker is responsible for maintenance of law and order at the island or group of islands, as the case may be, under his charge and for enforcement of all park ordinances. A number of the islands have been equipped for camping, including tables, benches, and open-air cook stoves, and pavilions of rustic design provide the necessary shelter.

FORT ANNE NATIONAL PARK

Old Fort Anne, scene of the first permanent European settlement in Canada, rightfully claims the interest of the tourist and the reverence of the student of history. If proof of this were needed it may be found in the record of attendance maintained since this historic site was dedicated as a national park to the people of Canada. During the year covered by this report the attendance, which numbered 14,000, compares favourably with the corresponding period for the year 1931-32, when approximately 17,000 visitors were reported. The decrease is attributed, not to a lessening of interest in things historical, but rather to present world conditions which tend to hinder travel.

A wealth of historical matter relating to the early history of Acadia has been collected in Fort Anne museum and the exhibits were viewed by 9,194 visitors, a slight decrease compared with the preceding year. However, it is noteworthy that as an educational force the museum played no inconsiderable part in influencing the large number of school children and teachers who visited the institution during the year. An affair of no little significance occurred on August 18, 1932, in the unveiling of the monument erected in Fort Anne to the memory of Jean Paul Mascarene. Born in France in 1684, Mascarene was taken when twelve years old to England by his father, a Huguenot exile. Two years later he entered upon a life career in the British army. He had obtained a captain's commission in 1710 and, when General Nicholson took Port Royal in October of that year, Mascarene was chosen to mount the first guard in the captured fortress, henceforward to be known as Fort Anne. For the next forty years Mascarene, who eventually rose to be Lieutenant Governor at Annapolis Royal, served in the defence and administration of the colony and by his tact and courage was largely responsible for saving Nova Scotia for the British Crown.

The ceremony of unveiling, which was performed in the presence of a notable gathering by the Hon. W. H. Covert, Lieutenant Governor of Nova Scotia, included an address by Professor D. C. Harvey, Archivist of Nova Scotia and representative of that province on the Historic Sites and Monuments Board, who sketched the life of the gallant soldier they had assembled to honour.

Immediately following the unveiling of the Mascarene memorial, another interesting event took place in the presentation of the colours bequeathed to the First Battalion, Annapolis Regiment, by the late Chief Justice Harris of the Supreme Court of Nova Scotia. The service of consecration was conducted by His Grace, the Most Reverend C. L. Worrell, the Archbishop of Nova Scotia and Primate of all Canada, after which, at the solicitation of the legal representatives of the late Chief Justice, His Honour the Lieutenant Governor made formal presentation of the colours, with customary ceremonies.

Acknowledgment is made of a number of gifts to the museum during the year, which throw further light on the history of the early French and British settlements and of the regiments stationed at Fort Anne. A bronze tablet, the gift of the Historical Association of Annapolis Royal in commemoration of Daniel Auger de Subercase, the last French Governor of Acadia and Commander of Port Royal, was also received.

FORT BEAUSÉJOUR NATIONAL PARK

It is gratifying to report that visitors to the park numbered 5,728 during the fiscal year 1932-33 although this represents a reduction in the attendance compared with the fiscal year 1931-32.

The fortifications at Beauséjour were commenced by the French either in 1750 or 1751 to withstand the challenge of Fort Lawrence, on the east bank of Missaguash river, then under construction by the British. The fort was no more than completed when it passed (1755) into the hands of British forces led by Col. Robert Monckton, who renamed it Fort Cumberland after the Duke of Cumberland, second son of George II. During British military occupation the fort was extended and strengthened, and successfully withstood an attack by rebel forces under Colonel Jonathan Eddy during the American Revolution (1776). Certain necessary repairs were made to the defences on the outbreak of the War of 1812-14 when the fort was garrisoned again for the last time. On the conclusion of hostilities, the position was abandoned as a military post. After this the fortifications, including the powder magazine, fell from disuse gradually into ruin. Upon the setting aside, in 1926 of this historic site as a National Park, the Department of the Interior assumed responsibility for the preservation and maintenance of what remained of this interesting link with the early history of New Brunswick. Some of the more important work accomplished to date includes repairs to the stone walls of the powder magazine and at the entrance to the fort. More recently the remains of the casemate inside the entrance were excavated and considerable progress made in levelling the ground within the fortifications. The site, which has been suitably fenced, is located off the Sackville-Amherst highway and is readily accessible. In the grounds direction markers have been erected on paths to objects of special interest or note. "Butte à Roger", site of an old French redoubt (1755), title to which has been acquired by the Dominion, was enclosed by a fence during the year.

UNEMPLOYMENT RELIEF

Public works in National Parks were continued during the fiscal year 1932-33 as a measure of unemployment relief, and appropriations totalling \$699,000 were authorized for this purpose by Order in Council under the provisions of the Unemployment and Farm Relief Continuance Act, 1932, in the following amounts:—

Alberta Transients (Banff-Jasper Highway) Order in Council, P.C. No. 1307, June 13, 1932, \$150,000; Order in Council, P.C. No. 1854, August 26, 1932, \$100,000; total, \$250,000.

Manitoba Two-Hundred-Man Camp (Riding Mountain National Park) Order in Council, P.C. No. 2162, September 30, 1932, \$24,000.

Single, Homeless Men (Banff, Jasper, Waterton Lakes, Elk Island, Prince Albert, Riding Mountain, and Point Pelee National Parks) Order in Council, P.C. No. 2358, October 22, 1932, \$200,000; Order in Council, P.C. No. 52, January 14, 1933, \$200,000; total \$400,000.

Local Married Men (Banff, Jasper, and Yoho National Parks) Order in Council, P.C. No. 2583, November 23, 1932, \$25,000.

Grand Total, \$699,000.

Pursuing, as in 1931, the policy of providing employment for the maximum number of men, bush clearing in proportion to labour employed led all activities in National Parks during the winter of 1932-33. In the larger camps, such as Banff, Jasper, Prince Albert, and Riding Mountain National Parks, full-time medical officers were appointed, and field hospitals or first-aid stations, with male nurses, were provided. The men were given medical attention and hospitalization as circumstances required. In the smaller camps, notably at Waterton Lakes, Elk Island, and Point Pelee National Parks, where the number of men did not warrant the employment of a full-time medical officer, arrangements were made whereby local physicians were available on call, which also included dental treatment. Men found to be without suitable clothing were supplied free of charge with the necessary kit, and a wholesome bill of fare was provided in all camps. In the larger camps the commissariat operated at actual cost a "tuck-shop" where the men were able to procure small luxuries including tobacco and cigarettes.

The organization and preliminary work involved in setting up camps for an army of 3,000 or more men in widely scattered areas, to say nothing of the arrangements necessary for the maintenance of an efficient transportation service under winter conditions for the most part in a mountainous country, cannot be covered within the limited space available; hence, the following schedule of works is a summary merely of the more important operations undertaken during the fiscal year 1932-33 as a measure of unemployment relief:

Banff-Jasper Highway

Alberta Transients.—(Period of major operations, May 1, 1932—November 30, 1932).

Lake Louise End: Clearing right of way 40 feet wide, 20.83 miles; stumping and grubbing 30 feet wide, 15.17 miles; grading (partial rock blasting also), 11.50 miles; surfacing, 8 miles partially completed; tote road construction 20.25 miles; culverts put in, 272; abutments completed for bridges across Mosquito creek and No-see-um creek; ditching.

Jasper End: Clearing right of way 40 feet wide, 23.4 miles; stumping and grubbing 30 feet wide, 22.9 miles; grading (also rock work), 23.5 miles; surfacing, 16 miles partially completed; culverts, 153; ditching.

Riding Mountain National Park

Two-Hundred-Man Camp.—(Period of operations, October and November, 1932).

Clearing out dead timber on campsite, 4.85 acres; clearing fairways and constructing greens and tees on golf course; improving road to club-house; constructing retaining wall from beach boulders and rock along lake front at

Wasagaming for promenade walk, 4,800 feet completed, and 3,000 feet back-filled; surveys made for drainage of low-lying lands and preliminary work started; clearing right of way (8·32 acres) Norgate road telephone line.

Single, Homeless Men.—(Period of operations, November 16, 1932—March 31, 1933).

Clearing and brushing a total of 1,690 acres; burning windfall and debris; stacking firewood for campers' use; constructing 4 additional tennis courts (involving much excavation work); constructing seven-section grandstand; continued clearing fairways and constructing greens, including ditching muskeg on No. 10 fairway on golf course; progress made with road and parking area improvements; completion of 8,300 feet retaining wall and constructing six flights of stairs from beach to promenade surmounting wall; filling and levelling areas and other landscape activities at Wasagaming including drainage of muskeg; constructing rock-crib dam Wasamin creek (outlet of Clear lake) to obtain control of water levels; extension of telephone system, Norgate and Dauphin roads; constructing foundation and walls of museum building; clearing right of way for trail to Ministik lake 10·70 acres; construction of 4 log bridges, clearing for addition to buffalo enclosure; winter's logging operations (camp No. 7) 123,924 linear feet timber.

Prince Albert National Park

Single, Homeless Men.—(Period of operations, November 15, 1932—March 31, 1933).

Clearing underbrush along park thoroughfare, 35 miles (depth 100-400 feet each side) also townsite, 31 acres; cleaning campgrounds; constructing 675 feet drainage ditch and cribbing 250 feet thereof; commenced foundation for tennis courts, also construction of wharf; erecting telephone line Waskesiu to McKenzie including clearing 20 miles right of way 12 feet wide and burning slash and debris; cutting timber—515 hubguards, 499 (culvert) logs, 1,909 building logs, 151 telephone poles, 124 bridge timbers, and 325 cords firewood; road grading, also snow shovelling; building 1,200 feet snow fence; clearing fairways and greens, 39·5 acres, for golf course and underbrushing an additional 12 acres; constructing 2 golfers' shelters, 8 rustic seats, and 1 rustic bridge; excavating foundation for Community Hall and Museum building and driving 133 piles; also excavating foundations for two bathhouses, building cement forms and partly filling; digging foundation trench and building cement forms for new Registration building; clearing site and constructing detour from highway and temporary bridge; repairing breakwater.

Banff National Park

Single, Homeless Men and Single, Park Residents.—(Period of operations, November 24, 1932—March 31, 1933).

Healy Creek Camp No. 1: Cutting and hauling building logs; brushing 58 acres; constructing camp hospital and other buildings, also approach to bridge.

Spray Valley at 3½ mile bridge Camp D: Constructing 5 culverts (three replacements), excavation work and brushing 18·5 acres.

Castle Mountain, M. 19 Camp B: brushing 143 acres.

Camp L at M. 1 (South C.P.R. Hotel): Constructing camp buildings (later taken over by local permanent).

Deadman's Corner (Hillsdale M 15 and 19) Camp C: Road construction, including excavation, grading and levelling.

Banff-Jasper Highway (December and January schedule): Cleaning up and burning slash. Gravelling roadway.

Local Married Men (Park Residents)

Banff-Castle Road (M 2 & 7): Widening rock and earth cuts and removing material.

Stoney Squaw Road: Clearing, excavating and construction work; building culverts (5).

General: Operating rock crusher—1,166 cubic yards of crushed rock and gravel being made available for road surfacing purposes. Building ice palace and toboggan slide for Banff Winter Carnival.

Jasper National Park

Single, Homeless Men and Single, Park Residents.—(Period of operations, December 1, 1932—March 31, 1933).

Pyramid Lake Camp: Clearing bush and burning slash both sides of road, distance 1 mile (depth 200-400 feet on each side): also between Pyramid and Patricia lakes: clearing up and burning deadfall along shore of Pyramid lake and at Cabin lake; clearing proposed automobile campsite at Patricia lake; felling, hauling and cutting up firewood.

Lake Annette Camp: Clearing and burning brush between camp and road; filling muskeg at lake Annette; clearing and thinning timber, and burning debris on road from lake Annette to Mildred, also west side of road near lake Edith from Y.M.C.A. camp to lake Annette. Getting out and hauling logs for building purposes; hauling rocks and gravel for filling.

Maligne Canyon Camp: Clearing bush and burning slash alongside highway towards Maligne canyon from camp; extending thinned area towards Mile 8, Canyon road; clearing right of way for Medicine Lake road location; logging for firewood.

Banff-Jasper Highway: (December—March schedule) Clearing bush and burning brushwood; removing boulders and cleaning ditches; camp maintenance and snow removal when necessary.

Local Married Men (Park Residents)

Athabaska River Improvement: Loading and hauling rock and constructing retaining wall; clearing right of way for proposed highway.

Townsite (Jasper) Improvement: Cutting, clearing and burning right of way for new entrance, north of town; hauling fill for Connaught drive (block 24); also areas near school and hospital and on both sides of Maligne road from railway crossing as far as Edith Cavell road; grading roadway, Colin crescent from Elm avenue, south; building road to sand pit and hauling sand to corral yards.

Yoho National Park

Local Married Men (Park Residents).—(Period of operations, December 1, 1932—March 31, 1933).

Field Townsite: Cleaning up and removing snow in townsite; widening rock and loose rock cuts on Emerald Lake road; clearing and improving the extension of the Kicking Horse automobile campsite at the junction of the Kicking Horse trail and Yoho Valley road.

Waterton Lakes National Park

Single, Homeless Men.—(Period of operations, November 16, 1932—March 31, 1933).

Belly River Road: Constructing camp quarters; surveying and cutting lines: cutting right of way for road location 40 feet wide, 6,300 feet; stumping and grubbing 30 feet wide, 5,800 feet; slashing and burning brushwood, 4 miles.

Logging Operations: Logs cut, hauled to mill and sawn, 82,000 feet b.m.; logging road widened and bridge repaired; brushwood burned and firewood hauled and stacked.

Elk Island National Park

Single, Homeless Men.—(Period of operations, November 1, 1932—March 31, 1933).

South Gate Road: Clearing right of way and burning brushwood, 6.75 miles.

Sandy Beach Development: Excavating foundation for two bathhouses and materials assembled at site.

Headquarters: Building storehouse; tractor occupied hauling gravel and keeping park thoroughfares open for traffic.

Point Pelee National Park

Single, Homeless Men.—(Period of operations, December 1, 1932—March 31, 1933).

Road Work: Regrading main road, 6 miles; trimming and widening, 18 feet, and other improvements, including re-surfacing, hauling clay-binder material, 1,300 cubic yards, 12 miles.

Marsh Channels: Excavating channels in marsh, 7,800 feet (6 feet wide by 3 to 4 feet deep) to produce better circulation of water.

Willow Planting: Planting willow poles on park beaches, as follows: east side beach, 1,404; extremity of Point, 187; west side beach, 544, total 2,135; excavating trenches between rows of poles, 3,400 feet and filling with smaller limbs and packing cover of soil; transplanting and setting out throughout park area, many small cedar, hackberry, and walnut trees.

Park Buildings: Re-roofing 8 park shelters also constructing and painting 50 new rustic tables and 100 benches; excavating for and constructing foundation for new bathhouse; repainting old bathhouse, pavilion, entrance booth, and other buildings.

Park Grounds: General cleaning up of the grounds, including removal of dead or fallen timber and burning brushwood.

Migratory Birds Convention Act

(Revised Statutes of Canada, 1927, and amendments)

On August 16, 1916, a treaty was executed at Washington, D.C., between the United States of America and Canada, the provisions of which were ratified and given the force of law by Act of the Parliament of Canada during the session of 1917.

Object.—Protection of certain migratory birds in Canada and the United States.

Administration.—The Minister of the Interior is responsible to Parliament for fulfilment of Canada's obligations under the Treaty; the Commissioner of National Parks is responsible to the Minister for the administration of the statute, and the Supervisor of Wild Life Protection is technical adviser and chief executive assistant.

New Ordinance.—Under and by virtue of Order in Council, P.C. 2283, of October 14, 1932, responsibility for police work pursuant to enforcement of the provisions of the Migratory Birds Convention Act, and Regulations made thereunder, was separated and made distinct from the general powers and responsibilities vested in the Minister of the Interior, and transferred to the Royal Canadian Mounted Police; all other powers and responsibilities continuing to remain, as heretofore, with the Department of the Interior.

PROTECTION OF MIGRATORY BIRDS

The Prairie Provinces of Canada, the nesting area of a considerable proportion of the duck of North America, fortunately suffered no recurrence during the season of 1932 of the drought generally so prevalent during the preceding three years. Waterfowl observers, and others who co-operated with the Wild Life Division, reported that as a result of greater rainfall much improvement in breeding conditions was noticeable throughout these areas during the year under review. Precipitation before the end of July, the important period from the standpoint of wild duck propagation, was not so profuse as during the corresponding period in 1928, although greater over the entire twelve months. The quantity of rainfall for the past five years was as follows: 1928, 16.69 inches; 1929, 13.07 inches; 1930, 16.22 inches; 1931, 15.06 inches; 1932, 18.96 inches.

In September of the year 1931, the Wild Life Division essayed to forecast the effect of drought upon twenty-two species of duck. Observations made during the following year (1932) indicated that two species only, mallard and lesser scaup, were not affected seriously by adverse weather conditions, and that, of the remainder, several species of duck were affected more seriously than was apprehended, a number of species indeed being in a precarious condition at this time. In British Columbia waterfowl conditions were normal, while in Eastern Canada, where the black duck is the most important species perhaps from a sportsman's point of view, conditions were above normal, flights of these waterfowl being quite numerous.

The Chief Migratory Bird Officer for Ontario and Quebec undertook the usual patrols in connection with the bird sanctuaries along the north shore of the gulf of St. Lawrence, and a staff of caretakers was responsible for the protection of bird life on this coast. The Chief Migratory Bird Officer for the Maritime Provinces was likewise responsible for the territory under his jurisdiction, while the Chief Migratory Bird Officer for Western Canada, in addition to his regular duties, kept in close touch with waterfowl conditions in the Prairie Provinces, and continued his investigation of the food habits of the mergansers (fish-eating duck) in relation to the fisheries of British Columbia.

Bird sanctuaries were established during the year as follows: Itatsoo lake, British Columbia; Charlesbourg Zoological Gardens, near Quebec City, P.Q.; Murray Bay, P.Q.; Whitlock, P.Q.; and mount Bruno, P.Q. Consideration also was given to the establishment of bird sanctuaries in the James Bay district, but action was deferred.

Permits and Licences.—Purposes for which permits and licences were issued during the period covered by this report included the following: collection of birds for scientific purposes, 236; possession of birds for propagation purposes, 640; capture of birds for propagating purposes, 9; destruction of certain birds when proven to be seriously menacing agriculture, fisheries, or other resources, 121; collection of eiderdown, 19; practice of taxidermy, 65; shooting of Canada goose and brant in Shelburne, Queens, and Halifax counties, Nova Scotia (season of 1932-33), 1,285.

Bird Banding.—The official bird banding records of Canada, of which the Wild Life Division is custodian, contain a great deal of valuable scientific information concerning the life history of wild birds. Practically all banding of birds is done by volunteers interested in the work, from whom records were received during the year of 22,742 birds banded. In the same period 1,081 banded birds were likewise recovered. This represents an increase of more than 183 per cent in the number of birds banded in Canada compared with the corresponding period last year. An increase is also shown in the number of persons taking out bird-banding permits, 134 of which were issued during the calendar year 1932.

Publicity.—Distribution of pamphlets through the Wild Life Division amounted to 27,362 copies, and dissemination of information concerning the shooting seasons and other related bird protection matters involved the distribution of the following: Migratory Birds Convention Act (unabridged), 6,200; (abridged), 12,763; posters, 34,145.

Through the medium of lectures much valuable information was circulated among school children and in many educational institutions, and by radio broadcast to a wide audience, concerning the importance of bird life in the community, and the measures that were being taken for the protection of



The Canada Goose.

feathered creatures. In this work the Supervisor of Wild Life Protection and district officers received the able support of a number of voluntary lecturers who, in turn, were assisted in their work by the loan of selected lantern slides to the number of 3,156 during the year.

Game Conferences.—The biennial conference of Dominion and Provincial Game Officers was held in April, 1932, at Ottawa, with the Minister of the Interior, Honourable Thomas G. Murphy, delivering the opening address to the delegates. Matters of common concern were discussed and many resolutions passed. The Department was represented also at the following meetings, called to consider questions of conservation and of scientific importance in the realm of wild life: The Twenty-sixth Convention of the International Association of Game, Fish and Conservation Commissioners, at Baltimore, Md., on September 19 and 20, 1932; The Fiftieth Stated Meeting of the American Ornithologists' Union, at Quebec, on October 17-21, 1932; The National Game Conference of the United States of America, held under the auspices of the American Game Protective Association, at New York, on November 28, 29, and 30, 1932, of which last named conference the Supervisor of Wild Life Protection (Canada) was appointed First Vice Chairman.

Legislation.—Changes of note made during the year to the Migratory Birds Convention Act, were the following: (1) by amendment to section 5, ss. 1, all members of the Royal Canadian Mounted Police were made *ex officio* Game Officers, instead of, as theretofore, by individual appointment; and (2) section 6 for purposes of clarity was repealed and the following substituted therefor: "No person, without lawful excuse, the proof whereof shall lie on such person, shall buy, sell or have in his possession any migratory game bird, migratory insectivorous bird or migratory non-game bird, or the nest or egg of any such bird or any part of any such bird, nest or egg during the time when the capturing, killing or taking of such bird, nest or egg is prohibited by this Act."

The Migratory Birds Regulations—framed pursuant to the Act—were subject only to limited amendment during the year, such changes as were made being of a character necessary to meet certain local conditions.

GENERAL WILD LIFE

Snowshoe Rabbit.—During the year, the Wild Life Division of the National Parks Service, in collaboration with the Bureau of Animal Population, Department of Zoology and Comparative Anatomy of Oxford University, continued its investigations pursuant to a study of the life cycles of the snowshoe rabbit or northern varying hare.

The purpose of the inquiry is to determine as nearly as possible the effect of fluctuation in numbers of the snowshoe rabbit upon those species of fur-bearing animals that depend upon this rodent as an appreciable item of food supply. That the snowshoe rabbit experiences periods of abundance followed by scarcity is well authenticated; in fact the evidence available that cycles occur in all forms of life is widespread in Nature, but it is the aim of scientific investigators to attain to a more perfect knowledge of the factors governing this fundamental rule. This investigation has produced a considerable quantity of informative data. The practice has been followed of distributing annually a form of questionnaire, and observers in all parts of the country have rendered the administration most valuable co-operation in the compilation of this material. In furtherance of the inquiry, an able digest of the accumulation of matter on hand was prepared and published in field-naturalist journals by Mr. Charles Elton of the Bureau of Animal Population, Department of Zoology and Comparative Anatomy, Oxford University.

Eel-Grass.—This is a flowering herb (*Zostera marina*) of the pondweed family. It grows wholly under water, and its rootstock forms an important part of the food of Canada goose and brant while the seed is favoured by black duck and to a lesser degree by other species of waterfowl. The leaf and stem of eel-grass, when dry-cured, is also of commercial value, being quite extensively used for the purpose of insulating and sound-proofing walls and for upholstering furniture.

The habitat of this aquatic plant in North America ranges, on the Atlantic coast, from North Carolina to Labrador and, on the Pacific coast, from Mexico to Alaska. In these localities it is found in estuaries and along the foreshore of the ocean in sheltered places, at a depth ranging from middle tide to several feet under low-tide water. It will be apparent, therefore, that the extinction of this plant over large stretches would be nothing short of a disaster to waterfowl but more particularly to Canada goose and brant which depend so much upon it for food.

That the danger apprehended is imminent as it affects the Atlantic seaboard is conceded by all competent observers. Widespread extermination of eel-grass has occurred during the last two years throughout areas where formerly there was an abundance of the plant. Apparently the manifestation was observed first

in 1930 on the coast of Virginia, from which locality it has spread northward to the gulf of St. Lawrence, and at the close of the fiscal year under review the causative organism had penetrated as far north as the Magdalen islands, and no cessation of the damage to the plant in Canadian waters was indicated. The principal effect of the increasing scarcity of eel-grass in relation to the conservation of migratory birds, a responsibility shared by Canada with the United States under the Migratory Birds Treaty, is that Canada goose and brant are exposed to the very definite danger of starvation during winter months when shore ice tends to reduce to a minimum the general food supply of waterfowl; indeed, it is the contention of many observers that fatalities among the species mentioned, attributable to this cause, have been exceptionally heavy since the outbreak of the disease. It is encouraging to note, however, that in the opinion of some observers, areas depleted of eel-grass are now accommodating other aquatic plants, such as sea lettuce (*Ulva*) and wigeon grass (*Ruppia*), a circumstance that may serve to a limited extent to render less acute the shortage of eel-grass.

A number of theories have been advanced to account for the phenomenon but these have been rejected for the most part as untenable. One theory has been suggested, and it is held to be worthy of further consideration, as to the likelihood of some living organism being at work, such as a bacterium, a fungus or a filterable virus. Tests have been made but so far with negative results. Two inspections of infested areas were made during the year by a qualified botanist in association with the Wild Life Division of the National Parks Service, and the Department also has maintained close contact with the situation through its staff of honorary bird officers as the course of such an entirely new disease in the future cannot be predicted. A peculiarity of the manifestation and one that has occasioned astonishment to conservationists, is that eel-grass beds on the Pacific coast have not been attacked, while, on the other hand, the primary host, or whatever the organism may be, has crossed the ocean since the devastation on this side was first noticed, and destroyed the plant over large areas on the west coast of France, where presently the situation is also the subject of scientific investigation.

ADVISORY BOARD ON WILD LIFE PROTECTION

The Advisory Board on Wild Life Protection was constituted in 1916 for the purpose of co-ordinating the efforts of all agencies, provincial or federal, concerned in the protection and use of wild life, to advise in the administration of the Northwest Game Act, and in regard to legislation necessary under the Treaty with the United States of America for the protection of migratory birds.

The Board, which is composed at present of eleven members representing the following departments: Agriculture, (1); Fisheries, (1); Indian Affairs, (2); Interior, (4); National Museum of Canada, (2); Royal Canadian Mounted Police, (1); is national (and, as regards the Migratory Birds Convention Act, international) in scope, and its advice on many questions of wild life is sought by provincial and territorial authorities. The Board has been called upon to render a service broader than was contemplated at the time of its inception, for with the passing years and the threatened depletion of many species of wild life, the problems that have been submitted for solution have become more and more complex in character. Generally speaking, the responsibility for the protection of wild life reposes in the several provinces concerned (excepting migratory birds; likewise fish in certain parts of Canada); but the problems are of such a special and intricate character that advice is constantly sought by the game officers of the provinces and territories and their questions receive the most careful consideration.

Wild life is an asset of great economic value to the community, and although wise laws have been enacted for the protection and perpetuation of Canada's faunal resources, constant watchfulness is necessary that this heritage may not be dissipated.

The Advisory Board on Wild Life Protection is the focal point from which, at the request of the authorities concerned, has emanated in the eighteen years of its corporate being many pronouncements containing the germ of policies since matured, including, among many other things, the following: The Migratory Birds Treaty and the framework of the Act and regulations erected thereon; The Northwest Game Act; bird sanctuaries; national registration of foxes; prohibition of the sale of game; exportation of game from the Yukon Territory; shipment of fur; relationship of Indians and wild life; trapping and hunting in the Northwest Territories by persons other than Indians; reindeer as a food supply for Eskimos; whale protection; control of predatory mammals and birds; bird banding; artificial feeding of wild waterfowl; drainage of waterfowl areas; public shooting grounds; survey of parasitology of Northern Canada; cycles in wild life of Northern Canada. During the fiscal year 1932-33, the Advisory Board on Wild Life Protection held two meetings during the course of which, among other subjects, attention was given the following: prohibition of the export of unworked walrus ivory from the Northwest Territories; payment of bounties on wolves and coyotes recovered in the Northwest Territories, and protection of marten and mink in the Northwest Territories.

Members of Advisory Board

The Advisory Board on Wild Life Protection, as originally constituted, was composed of the following members:—

The late James White, F.R.G.S., F.R.S.C., Assistant to the Chairman of the Commission of Conservation;

Duncan C. Scott, Litt. D., F.R.S.C., Deputy Superintendent General of Indian Affairs;

The late Gordon C. Hewitt, D.Sc., Ph.D., Dominion Entomologist and Consulting Zoologist;

R. M. Anderson, B.A., Ph.D., Geological Survey of Canada;

J. B. Harkin, Commissioner of Dominion Parks, Department of the Interior.

A number of changes occurred from time to time in the personnel of the Board, and the following were members for varying periods:—

Professor E. E. Prince, B.A., F.R.S.C., LL.D., Dominion Commissioner of Fisheries.

W. W. Cory, C.M.G., Deputy Minister of the Interior and Commissioner of the Northwest Territories;

Major-General A. B. Perry, C.M.G., Commissioner of the Royal Canadian Mounted Police;

Oswald S. Finnie, B.Sc., D.L.S., Director of the North West Territories and Yukon Branch, Department of the Interior;

Major-General Cortlandt Starnes, Commissioner of the Royal Canadian Mounted Police.

The Board at present is composed of the following members:—

J. B. Harkin, Commissioner of National Parks of Canada, Department of the Interior (Chairman);

R. M. Anderson, B.A., Ph.D., Chief of Division of Biology, National Museum of Canada;

Arthur Gibson, Dominion Entomologist, Department of Agriculture;

Major-General J. H. MacBrien, C.B., C.M.G., D.S.O., Commissioner of the Royal Canadian Mounted Police;

Harold W. McGill, M.D., M.C., V.D., Deputy Superintendent General of Indian Affairs;

T. R. L. MacInnes, Department of Indian Affairs;
 J. A. Rodd, Director of Fish Culture, Department of Fisheries;
 P. A. Taverner, Ornithologist, National Museum of Canada.
 J. L. Turner, Dominion Lands Administration, Department of the Interior;
 K. R. Daly, B.A., Department of the Interior (Legal Adviser).
 Hoyes Lloyd, M.A., Supervisor of Wild Life Protection, Department of the Interior, (Secretary).

Historic Sites and Monuments

Satisfactory progress was made during the year under review with the acquisition, preservation, and marking of historic sites eminently national in character throughout the Dominion, and the commemoration of public services of outstanding personages connected with the early history of Canada.

These sites are selected on the recommendation of the Historic Sites and Monuments Board of Canada, an honorary advisory body composed of a number of recognized authorities on Canadian history, the personnel of which is as follows:—

Chairman, Brig.-Gen. E. A. Cruikshank, LL.D., F.R.S.C., F. R. Hist., Ottawa, Ont.

J. B. Harkin, Commissioner of National Parks, Department of the Interior, Ottawa, Ont.

His Honour F. W. Howay, LL.B., F.R.S.C., New Westminster, B.C.

J. Clarence Webster, M.D., D.Sc., LL.D., F.R.S.C., Shediac, N.B.

Professor Fred Landon, M.A., F.R.S.C., London, Ont.

Professor D. C. Harvey, M.A., F.R.S.C., Halifax, N.S.

Hon. E. Fabre-Surveyer, B.A., LL.M., B.C.L., F.R.S.C., Montreal, Que. (vice Marechal Nantel, B.C., B.C.L., C.R., Montreal, Que. resigned).

G. Wilford Bryan, National Parks Service, (Secretary).

Approximately 1,000 sites have been considered by the Board since the work was inaugurated in 1919. More than 25 per cent of this number have been recommended as worthy of marking and at the close of the fiscal year 1932-33, a total of 197 sites had been marked by the erection of appropriate memorials. An artistic design of bronze tablet, which carries a concise account of the event or subject commemorated, has been adopted for this purpose. Except where it is affixed to a public building or other prominent structure, a monument is provided in the form of a field-stone cairn, large boulder, or other suitable standard to carry the tablet.

SITES MARKED

The following memorials were erected during the fiscal year 1932-33:—

Bloody Creek Engagements, near Bridgetown, N.S.—A cairn with tablet was erected on a small plot of land, donated by Mr. Milledge Rice, on the south side of the Bridgetown-Annapolis Royal highway, east of Bloody creek, to commemorate the two encounters between the British garrison of Annapolis Royal and allied French and Indians in the half century of conflict for the possession of Acadia. These encounters took place about a mile apart, the first on June 10, 1711, and the other on December 8, 1757.

First Paper Mill in Canada, St. Andrews East, P.Q.—A cairn was erected in a small park near the town hall and adjacent to the Montreal-Ottawa highway to mark the site of the first paper mill in Canada, which was erected early in the nineteenth century (1803, 1804 or 1805) by a group of New Englanders and later operated by Mr. James Brown of Montreal, an event that saw Canada embark on one of her most important industries.

Sir Gordon Drummond, Toronto, Ontario.—A tablet was affixed to the inner wall at the right of the main entrance to the Parliament Buildings at Toronto, to commemorate the public services of Sir Gordon Drummond in a civil and military capacity. In 1813 he was selected by the British Government for special service in Canada, and upon his arrival in October, was appointed to command all the forces in Upper Canada, and to administer the civil affairs of the province as President of the Executive Council. His daring and skilful winter campaign of 1813, transformed public feeling from deep depression to one of supreme confidence. He commanded in person at the capture of Oswego; at Lundy's Lane; and at the siege of Fort Erie.

Nanticoke, Haldimand County, Ontario.—A tablet was affixed to the outer wall of the school-house in the village to commemorate the events connected with the engagement which took place there on November 13, 1813, when Norfolk volunteer militia, under the command of Lt.-Colonel Henry Bostwick, routed a band of enemy marauders who had terrorized the country. This exploit inspired the military forces greatly and was an important factor in the immediate recovery of lost ground.

Fort Drummond, Queenston, Ontario.—A tablet was affixed to a monument erected by the Niagara Parks Commission at Queenston Heights, to mark the site of the double fortification built in May and June, 1814, by military labour for the defence of the Niagara frontier, and named in honour of Sir Gordon Drummond.

General Strange's Column, Edmonton, Alberta.—A cut stone monument with two tablets was erected on the grounds of the new Provincial Administration Buildings to commemorate the operations of the Alberta field force under Major-General Thomas Bland Strange during the North West rebellion of 1885, comprising detachments of the North West Mounted Police, Alberta Mounted Rifles, Steele's Scouts, 65th Carabiniers (Mont-Royal), and the Winnipeg Light Infantry. Advancing from Calgary by way of Edmonton and using waggon and boat transport, this force engaged the Indians under Big Bear near Frenchman's butte and at Loon lake in May, 1885. These operations assisted materially in preventing a general Indian uprising.

PRESERVATION WORK

Louisbourg Fortress, near Louisbourg, N.S.—Considerable progress was made in connection with the development of the area comprising the site of the original fortress. The entrance road was regraded where necessary, and surfaced from the west gate to its junction with rue d'Orleans. Excavation was carried out at the north end of the citadel which contained the soldiers' barracks and officers' quarters. All walls uncovered during the process of excavation were repaired and restored to an average height of two feet above ground. The remains of a body, supposedly those of Duc d'Anville, were located underneath the chapel. These relics have been suitably reinterred pending possible identification. The French and English cemeteries at Rochefort Point were enclosed with a wooden fence; a crib and fence were constructed between high and low water mark near the main entrance to the site, and repairs made to the caretaker's quarters. There was erected at Black Rock a grey granite boulder with lead lettering, the gift of the Earl of Dundonald to perpetuate the memory of one of his ancestors who was killed during the second siege of the fortress.

Fort Beauséjour, near Aulac, N.B.—Considerable excavation work was carried out at the main gateway which disclosed the original stonework in a fair state of preservation, with loopholes extending across the entire gate. This

wall was uncovered to a depth of seven feet and repaired, while the ground between it and the powder magazine was levelled. The remains of the old casemate inside the entrance were excavated to a depth of three feet below the loopholes in the main wall. A start also was made in cleaning out the old casemate near the fort entrance. The area comprising the Butte à Roger outpost was enclosed with a suitable fence.

Martello Tower, Saint John, N.B.—A considerable portion of the exterior wall of this stone structure was repaired and repointed, the basement cleaned and whitewashed, and an electric lighting system installed throughout.



Section of restored walls of citadel, Fort Louisbourg, Cape Breton, Nova Scotia.

Fort Monckton, near Port Elgin, N.B.—A water supply was provided for the convenience of visitors and a large wooden sign, carrying a reproduction in black and white, with legend, of the plans of the original fort, was erected on a site near the centre of the fortifications.

Fort Lennox, Ile-aux-Noix, P.Q.—A new landing wharf was constructed on the east side of the island; the ovens at the rear of the officers' quarters were excavated and partially repaired, the stone arch stairway at the rear of the men's barracks was repaired and pointed and other repairs made.

Fort Wellington, Prescott, Ontario.—Repairs were carried out at the officers' quarters, listening post and museum; the exterior upper portion of the blockhouse was painted and other improvements made to the buildings and grounds.

ACQUISITION OF SITES

Control of sites recommended by the Board or permission to erect tablets on public or private property was obtained in the following cases:—

First Submarine Telegraph in America, Charlottetown, P.E.I.—Permission was obtained from the Government of Prince Edward Island to affix a tablet to one of the pillars at the entrance to the legislative buildings to commemorate the events connected with the laying of the first submarine telegraph cable in America, on November 22, 1852.

Fort St. Louis, near Port la Tour, N.S.—Mr. Orlando Taylor of Montreal donated a plot of land near the easterly limit of the public highway which runs between Barrington and Baccaro Point, on which to erect a memorial to mark the site of Charles de la Tour's fort, which was built prior to 1627.

First Postal Service, Montreal, P.Q.—The Government has granted permission to affix a tablet to the Post Office building on St. James street, to commemorate the events connected with the inauguration of the first organized postal service in Canada.

Yonge Street, York County, Ontario.—Permission was obtained from the Summit Golf and Country Club to place a cairn and tablet on its property adjacent to highway No. 11 (Yonge street), approximately twenty miles north of Toronto, to commemorate the opening of the military road and commercial highway between lakes Ontario and Huron, which was laid out and constructed in 1794-96 by direction of Lieut.-Governor Simcoe and named in honour of Sir George Yonge, Secretary for War.

Fort Erie.—Permission was obtained from the Niagara Parks Commission to affix a tablet to the remains of one of the stone walls near the original entrance to the fort, which was first constructed in 1807-8.

Henry Kelsey, The Pas, Manitoba.—Permission was obtained from the town council to place a memorial in Devon park, in memory of Henry Kelsey, Hudson's Bay Company fur trader and explorer, the first white man to see the prairie lands of Western Canada.

Fort Chipewyan, Alberta.—The Hudson's Bay Company granted permission for the erection of a memorial on a small plot of land situated in Lot 12, Chipewyan Settlement, on lake Athabaska, to mark the site of the fort built in 1788 by Roderick Mackenzie for the North West Company.

Fort Alexandria, Alexandria, B.C.—Mr. T. H. Greenfield of McAllister, B.C., donated a plot of land adjacent to the Cariboo main highway, between Quesnel and Ashcroft, to mark the site of the last post established in 1821 by the North West Company west of the Rocky mountains.

APPENDIX

The Alpine Club of Canada

(From the report of the Chairman of the Club-House Committee)

The Banff club-house was open from June 25 to September 12, 1932. The attendance was a little larger than that of the previous year, probably due, it has been suggested, to a reduction in the rates.

The total number of guests registered was 408, visitors reporting from various points as follows:—

British Columbia	36	New Brunswick	1
Alberta	176	British Isles	30
Saskatchewan	28	British possessions	3
Manitoba	32	United States	71
Ontario	21	China	1
Quebec	6	Chile	2
Nova Scotia	1		

In addition to the foregoing, nineteen parties, totalling 88 persons, made use of two cabins which, as usual, were left equipped for out-of-season guests.

Improvements undertaken at the club-house included: a complete new drainage system; decorating interior and painting exterior of the main buildings; regrading and rebuilding footpath from Upper Springs road; improvement to the parking ground by the erection of rails, bumpers, and markers; construction of flower beds and lattice work for vines. The receipt of many useful gifts is acknowledged.

(From the report of the Secretary of the Club-House Committee)

The twenty-seventh annual camp of the club was held in Glacier National Park from July 18 to August 1, 1932; the location selected being the lawn of old Glacier House through kind permission of Canadian Pacific Railway officials. Exceptionally fine weather made possible many trips by those present, the most popular being over Baloo pass to the Nakimu caves, a trip through the latter with a guide proving a most fascinating experience. From a fly camp established on the slopes of the Dawson glacier, mounts Haesler and Selwyn were negotiated. A number of parties also visited the Hermit hut, whence mounts Tupper and Sifton were climbed. Fifteen candidates in five parties passed the test for active membership by climbs on mounts Avalanche and Sifton; also Eagle and Terminal peaks.

Visitors provided with quarters under canvas numbered 112, the following organizations being represented: Alpine Clubs of England, France, Switzerland, and America; the Appalachian, Harvard, British Columbia, and Sierra Mountaineering Clubs; also Royal Geographic Society and Ski Club of Great Britain.

The annual meeting of the club was held at camp in Glacier National Park on July 29, when the work of the year was reviewed and ordinary business transacted. The formation of a Glacier section of the Alpine Club of Canada and extension of the scope of the Ski section were two decisions of importance reached at the meeting.

PUBLICATIONS AND MAPS AVAILABLE FOR DISTRIBUTION

National Parks of Canada

Parks

Banff, Kootenay and Yoho National Parks
Elk Island National Park
Jasper Trails
Kicking Horse Trail
Kootenay National Park and Banff-Windermere Highway
National Parks of Canada in Ontario
Prince Albert National Park
Riding Mountain National Park
Pocket Guide to Waterton Lakes Park
Waterton Lakes Park

Historic Sites

Guide to Fort Anne
Guide to Fort Chambly (Also available in French)
Guide to Fort Lennox (Also available in French)
Guide to Fort Wellington
Story of Sir Alexander Mackenzie's Rock

Migratory Birds

Migratory Birds Convention Act and Regulations
Attracting Birds with Food and Water
Bird Houses and Their Occupants
Lessons on Bird Protection

(These publications are also available in French)

Tourist Information

How to Enter Canada
Vacations in Canada
Canada (folder)
Camping in Canada
Fishing in Canada
Motoring in Canada
Sport Fishing in Canada
Winter in Canada
Canada's Game Fields
Canoe Trips to Hudson Bay; in the Maritime Provinces; in Quebec (Also available in French); in Ontario; in Western Canada
Road Maps of Canada and United States
 General sheet (Scale, 100 miles to 1 inch)
 Atlantic sheet (Scale, 30 miles to 1 inch)
 Great Lakes sheet (Scale, 30 miles to 1 inch)
 Middle West sheet (Scale, 35 miles to 1 inch)
 Pacific sheet (Scale, 40 miles to 1 inch)

COPIES OF THE ABOVE MAY BE OBTAINED FROM

THE COMMISSIONER OF NATIONAL PARKS,
DEPARTMENT OF THE INTERIOR,
OTTAWA, CANADA.

THE NATIONAL PARKS OF CANADA

(Eighteen in number with a total area of 12,059 square miles)

Park	Location	Date established	Area in square miles	Characteristics
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,585.00	Mountain playground containing two famous resorts, Banff and Lake Louise. Massive ranges, upper slopes bare and worn, or glacier crowned; lower slopes covered with luxuriant forests and flowered alplands; glacier-fed lakes. Wild deer, goat, sheep, elk, etc. Recreations—alpine climbing, riding, swimming, golf, tennis, motoring, skiing, tobogganing, snow-shoeing, skating, curling.
Buffalo.....	Eastern Alberta, near Wainwright.	1908	197.56	Fenced enclosure; home of the Dominion government buffalo herd. Over 6,000 buffalo, also moose, deer, elk, yak and hybrids.
Elk Island.....	Central Alberta, near Lamont.	1911	51.00	Fenced enclosure, containing over 1,600 buffalo, also moose, elk, and deer.
Fort Anne.....	Nova Scotia..... (Annapolis Royal).	1917	31 (acres)	National Historic Park—Site of early Acadian settlement of Port Royal; museum containing interesting relics of early days.
Fort Beausejour....	New Brunswick, near Sackville.	1926	59 (acres)	National Historic Park—Site of old French fort erected middle of 17th century. Renamed Fort Cumberland in 1755 by British; original name was later restored.
Georgian Bay Islands (including Flowerpot island reserve).	In Georgian Bay near Midland, Ontario.	1929	5.37	Thirty islands in Georgian Bay, Beausoleil, largest of the group is a popular camping resort. Fine bathing beaches, beautiful groves of trees, varied bird and plant life. Flowerpot island, at head of Bruce peninsula has interesting limestone formations and numerous caves.
Glacier.....	Southeastern British Columbia on summit of the Selkirk range.	1886	521.00	Massive formation of the old Selkirk range; luxuriant forests, alpine flower gardens. Centre for alpine climbers. Illecillewaet and Asulkan glaciers and valleys; Nakimu caves. Marion lake, Rogers and Baloo passes.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.00	Immense mountain wilderness, rich in historical associations. Numbers of unclimbed peaks; glaciers, snowfields, canyons, lakes of wonderful colouring; Athabaska valley, Maligne lake, Mount Edith Cavell; Miette hot springs; big game sanctuary. One of the finest golf courses on the continent.
Kootenay.....	Southeastern British Columbia along Banff-Windermere highway.	1920	587.00	Park extends five miles on each side of Vermilion-Sinclair section of Banff-Windermere highway. Deep canyons, Iron Gates, Briscoe range, Sinclair canyon, famed Radium Hot Springs. Bear, deer, caribou, and Rocky Mountain sheep.

THE NATIONAL PARKS OF CANADA—*Concluded*

Park	Location	Date established	Area in square miles	Characteristics
Mount Revelstoke...	Southeastern British Columbia on the summit of Mount Revelstoke.	1914	100.00	Nineteen mile drive up Mt. Revelstoke affording panoramic views of the Columbia and Illecillewaet valleys, Clach-na-Cuddin icefield, lakes Eva and Millar. Game sanctuary and winter sports resort.
Nemiskam.....	Southern Alberta, near Foremost.	1922	8.50	Fenced antelope reserve, containing more than 300 head of this interesting animal, a species indigenous to the region.
Point Pelee.....	Southern Ontario on lake Erie.	1918	6.04	Most southerly mainland point in Canada, 40° 54' N. Resting place of many migratory birds; summer resort and bird reserve; unique flora. Recreational area.
Prince Albert.....	Central Saskatchewan, north of Prince Albert.	1927	1,869.00	Forest country of northwestern Canada, birch, spruce, jack-pine, poplar; lakes and streams; moose, deer, bear, beaver and interesting bird life. Excellent fishing, northern pike, pickerel and lake trout; fine white sand beaches, ideal camping grounds.
Riding Mountain...	Southwestern Manitoba, west of lake Winnipeg.	1929	1,148.04	Rolling woodland country in western Manitoba dotted with several beautiful lakes. Natural home of big game including one of the largest herds of wild elk in Canada. Fine bathing and camping, summer resort; government golf course.
St. Lawrence Islands	In St. Lawrence river between Morrisburg and Kingston, Ontario.	1904	180.8 (acres)	Thirteen Islands among the "Thousand Islands" in the St. Lawrence river. Recreational area, camping, fishing.
Waterton Lakes.....	Southern Alberta adjoining Glacier park in Montana, U.S.A.	1895	220.00	Canadian section, Waterton-Glacier International Peace Park. Mountains noted for beauty of colouring; lovely lakes, picturesque trails; waterfalls, snow peaks, trout fishing, camping, golf.
Wawaskey.....	Southeastern Alberta...	1922	54.00	Antelope reserve, as yet undeveloped.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.00	Rugged scenery on west slope of Rockies; Kicking Horse valley; lofty peaks, large number with permanent ice-caps or glaciers; famous Yoho valley with numerous waterfalls, one over 1,200 feet in height. Natural bridge, Emerald lake, lakes O'Hara and McArthur.

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(NATIONAL PARKS OF CANADA)

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ANNUAL REPORT

OF THE

COMMISSIONER

FISCAL YEAR ENDED MARCH 31,

1933/1934



DEPARTMENT OF THE INTERIOR

HON. THOMAS G. MURPHY - - - - Minister

R. A. GIBSON - - - Assistant Deputy Minister

J. B. HARKIN - Commissioner of National Parks

DEPARTMENT OF THE INTERIOR, CANADA

HON. THOMAS G. MURPHY, Minister

R. A. GIBSON, Assistant Deputy Minister

NATIONAL PARKS OF CANADA

J. B. HARKIN, Commissioner

ANNUAL REPORT

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COMMISSIONER OF NATIONAL PARKS

FISCAL YEAR ENDED MARCH 31,

1934

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OTTAWA, 1935



Townsite of Waterton Park from Mount Crandell—Waterton Lakes National Park.

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

THE YEAR IN REVIEW

Steady progress was made in all departments of the National Parks Branch during the fiscal year ended March 31, 1934. This is particularly satisfactory in view of present conditions.

In common with other Government departments, the normal parks appropriations were reduced to a minimum, providing only for the maintenance of existing parks services. On the other hand, special expenditures were authorized to provide unemployment relief work in the National Parks which made it possible to undertake various road and general improvement projects.

Tourist travel was well maintained, the number of visitors to all parks being approximately 2 per cent greater than for the previous year. It is encouraging to note that advance indications point to a much larger increase during the coming season.

It is difficult to over-estimate the importance of tourist travel to Canada. Its beneficial influence on the trade balances of the country is now so universally recognized that all governing bodies and public spirited citizens are vitally interested in its promotion.

Canada has many unsurpassed resources of tourist attraction, including marvellous scenery of widely different kinds, splendid highways, historic cities, the best hunting and fishing on this continent, and countless lakes and waterways on which holiday resorts to suit all purses are located. It is perhaps not too much to claim that the great, scenic National Parks of Canada have done more to focus the attention of tourists from other countries on the attractions of Canada than any other single factor.

Government information bureaux are maintained during the season at Banff, Waterton Lakes, and Riding Mountain National Parks and are much appreciated by the travelling public. A total of 26,962 inquiries was dealt with by the bureaux during the tourist season of 1933.

On June 1, 1933, the Tourist Division of the National Development Bureau was made a part of the National Parks Branch. As distinct from the publicity division of the National Parks Service, which operates wholly as a medium for promoting interest in and travel to the National Parks, the tourist division co-ordinates within certain limits the activities of the provincial tourist bureaux and traffic organizations interested in the development of tourist travel throughout the length and breadth of the Dominion.

One of the cardinal principles of National Parks policy has always been the rigid protection of all wild animal life within the parks in a state of natural balance as between predators and non-predators, and the restoration of those types which were in danger of extermination, such as buffalo, elk, and pronghorn antelope.

The first object is secured by maintaining an efficient warden service in all the large, scenic parks, and the second by the establishment of animal parks, such as Buffalo, Elk Island, and Nemiskam Parks, where herds have been successfully bred under natural conditions within vast fenced areas.

Reports from all the parks show that the wild animal life did well during the past year and is still increasing. One of the results of a long-continued policy of rigid protection within the parks, and one of the most convincing proofs of its having been successfully carried out, is that parks animals have grown unafraid of man and do not hide at the first sound of a distant horse-bell, as do animals that have been hunted. One of the added charms of parks travel, which is always keenly enjoyed by tourists, is that travellers will see, perhaps, twenty animals along a parks road, trail, or lakeshore where they might only see one in an equally thickly inhabited hunting district.

The official opening of the Riding Mountain National Park in Manitoba was an event of outstanding importance during 1933. The opening ceremonies took place on July 26, 1933, in the presence of approximately 10,000 people.

A tablet commemorating the opening of the park was unveiled by the Lieutenant-Governor of Manitoba, who dedicated the park "to the people of Canada for their benefit, education, and enjoyment."

The tablet is incorporated in a cairn of native stone erected in front of the Administration buildings at Wasagamung on the shores of beautiful Clear lake.

Besides the Lieutenant-Governor, and Hon. Thomas G. Murphy, Minister of the Interior, several other prominent persons addressed the gathering and through the courtesy of the Canadian Radio Broadcasting Commission, in co-operation with the Manitoba Telephone System, a radio broadcast of the proceedings was released through all western stations.

The growing popularity of Riding Mountain National Park and its usefulness as a pleasure resort for the people of Manitoba is evidenced by the fact that the number of visitors in 1933 was 72 per cent greater than for the previous year.

NATIONAL PARKS VISITORS

The volume of tourist travel to and in the National Parks has shown remarkable steadiness during the past three years, in spite of a world-wide condition that was bound to cause a falling-off in numbers.

It is very satisfactory, therefore, to be able to report an increase of 11,424 in the number of tourists for the fiscal year ending March 31, 1934, as compared with the previous year, the total number being only 22,441 short of equalling the record established in 1931-32.

With a view to the stimulation of tourist travel in the parks, the branch maintains a publicity division which seeks to interest a constantly increasing number of people in the parks by correspondence, by conducting illustrated lecture tours both in Canada and the United States, and by co-operation with other publicity agencies in all parts of both countries. While it is impossible to know just how large a proportion of parks visitors are influenced by these means, there can be no doubt that they are very successful, as is proved by the great numbers of inquiries for information and the many letters of appreciation received every year.

Since 1914, in which year the practice of keeping a systematic record of parks visitors was introduced, parks tourist travel has shown a tremendous increase. During the season of 1914-15, visitors to the National Parks numbered 54,064, as compared with 593,774 for the year covered by this report. These are facts that afford a most striking proof of the growth of parks tourist travel, the peak of which was attained in the year 1931-32 when a total of 616,215 tourists visited the parks.

Tourist figures by parks for the fiscal year ending March 31, 1934, compared with those for the preceding year, are reproduced in the following table:—

VISITORS TO NATIONAL PARKS

National Park	1933-34	1932-33	National Park	1933-34	1932-33
Banff.....	132,264	139,669	Mount Revelstoke.....	6,000*	5,000*
Buffalo.....	12,631	12,527	Nemiskam.....	21	25
Elk Island.....	47,487	39,165	Point Pelee.....	149,380	162,785
Fort Anne.....	14,000*	14,000*	Prince Albert.....	19,126	27,007
Fort Beausejour.....	5,614	5,728	Riding Mountain.....	91,652	53,103
Georgian Bay Islands.....	6,780	4,682	St. Lawrence Islands.....	15,000*	15,000*
Glacier.....	1,000*	1,000*	Waterton Lakes.....	32,844	35,334
Jasper.....	13,489	15,308	Yoho.....	13,688	17,093
Kootenay.....	32,798	34,924			
			Totals.....	593,774	582,350

*Estimated.

NATIONAL PARKS ENGINEERING

The Engineering Division of the National Parks Service is responsible for the preparation of plans and specifications, and for the construction and maintenance of all major development and improvement works undertaken in the National Parks of Canada as well as supervision over all engineering works done in the parks.

Included under maintenance is the care and upkeep of all parks highways and bridges, together with many municipal works, such as streets, sidewalks, and boulevards; waterworks and sewer systems; electric lighting and power plants; telephone systems; bathhouses and parks buildings generally; public camp grounds and recreational facilities. In addition, the Engineering Division carries out the erection of Historic Sites monuments as recommended by the Historic Sites and Monuments Board.



The new Banff-Jasper Highway—View of Pope's Peak from Mile 8 (Lake Louise end).

When it became necessary for the Government of Canada to organize unemployment relief work on a large scale, in order to meet hitherto unprecedented conditions, the National Parks, being the only large areas of accessible Dominion lands, constituted a natural field for such operations. Consequently there devolved upon the National Parks Service the necessity of organizing a tremendous amount of emergency work in the parks under extraordinarily difficult conditions. When it is added that much of this work was required to be organized during the winter season, and in a mountainous country, some idea may be gained of the strain put upon the personnel of the staff, and, particularly, on the officers of the Engineering Division under whom the works were carried out.

A full account of the methods adopted and the works undertaken will be found in following pages of this report.

UNEMPLOYMENT RELIEF WORK

The underlying principle of the activities respecting unemployment relief has been to furnish employment for the greatest number of men at the least practicable cost to the general taxpayer.

With the above primary object always in view, it must be pointed out that naturally many of the works have been undertaken in advance of requirements; they were done at the wrong season of the year and the use of labour-saving machinery was reduced to a minimum. Most of the men on relief were such as no contractor would employ on the kind of work in question. In the preceding sentence there is no intention of suggesting that the majority of the men on relief were of poor character or unwilling to work, because the reports of officers in charge of relief camps in general bear witness to the contrary, but that they were drawn from every class in the Dominion, including professional men, tradesmen, artisans, factory-workers, and school teachers, as well as labourers, whereas most of the work which it was possible to provide was of a labouring description. In spite of the above unavoidable conditions, the amount of valuable construction work which has been carried out by the men of the relief camps is remarkable and a lasting monument to the character and good will of the men themselves during a very dispiriting time of their lives.

During the past year the relief camps for single, homeless men were operated on a subsistence basis. For each day of work a man received a cash allowance of twenty cents, in addition to board and shelter, and also clothing and medical attention as required. Every man was supplied with a mattress and blankets. Many of the men reporting for work were found to be without proper clothing, in which case they were supplied with suitable clothes from the supply purchased and kept in stock for that purpose. The policy of providing substantial and wholesome meals, with due regard to variety, was rigidly adhered to, and this fact, which was greatly appreciated by the men, had much to do with the general contentment.

Camps were built on a standard design, to accommodate either fifty or a hundred men. All buildings were well lighted and ventilated, and a special building was provided as a washhouse and laundry for each camp. Sanitary arrangements were given the closest attention and the fact that there was no outbreak of contagious disease in any one of the fifty or more camps operated by the National Parks Service last year is a proof of the care given to this matter.

The men not only received free medical and dental attention, but in each fifty-man camp a separate building was provided for first-aid cases with accommodation for three or four patients. Men with severe colds, or suffering from influenza, or other minor ailment, were quartered in these buildings for observation and care, and as a measure of protection against the spread of infection. At points where there were large concentrations of men, as in the

case of base camps on the Banff-Jasper highway, well equipped field hospitals were maintained, with first-aid men and male nurses in charge. Arrangements were made for the services of fully qualified medical officers at many of the camps when required.

Recognizing the value of recreation, arrangements were made for a regular supply of reading matter, including newspapers, magazines, and periodicals. Occasion is taken here to acknowledge gratefully the co-operation of various service organizations through whose agency it was possible in most of the camps to maintain a supply of reading matter. In the larger camps, notably at Riding Mountain National Park, facilities for recreation were highly developed and in many of the winter camps the men constructed open-air rinks and found healthful recreation in hockey and skating.

It is a matter of profound gratification that no serious labour troubles occurred in any region covered by the operations of the National Parks Service since the inception of unemployment relief work. True, turbulent characters have been encountered occasionally, but when it was found, on investigation, that the complaint arose solely from a desire to destroy the morale of the men and disorganize the camp, such trouble-makers were treated fairly but firmly, and, if necessary, their removal from camp was effected before the disaffection spread. Speaking for the vast majority, however, it may be stated that as regards both the morale and loyalty to order and good government, camp officers have enjoyed the greatest measure of support from the men, there being a general recognition of the fact that no effort was being spared to make their sojourn in camp as pleasant as possible during a period of economic readjustment.

In the case of married park residents, relief was limited to persons who had established permanent domicile. The heads of families in need of relief, qualifying under this head, were given employment on a quota basis at thirty cents an hour for an eight-hour day, such quota being determined by the actual requirements of each family in the matter of food, clothing, shelter, fuel, and light, according to recognized standards of living.

Among the various undertakings carried on during the past year as relief works, some of the most important are the following highways and roads:—

The Golden-Revelstoke highway in British Columbia.

The Golden-Donald highway in British Columbia.

The Banff-Jasper highway in Banff and Jasper Parks.

The Belly River road in Waterton Lakes National Park.

The South Gate road in Elk Island National Park.

The Rabbit-Meridian road in Prince Albert National Park.

The Clear Lake-Dauphin road in Riding Mountain National Park.

In addition to the above many other works were carried on, such as the construction of administrative buildings, docks and breakwaters, golf courses, camp sites, and retaining walls, together with the removal of forest fire hazards and underbrushing.

Golden-Revelstoke Highway.—Construction of all that portion of this projected road, known also as Big Bend Highway, from Donald, B.C., to Boat Encampment, was undertaken by the Dominion Government pursuant to arrangements made in 1929 with the Government of British Columbia which undertook on behalf of the province to construct all that portion of the road from Canoe River to Revelstoke, B.C. Clearing and general road work was commenced on the Dominion section in November of that year and has proceeded each season since that time.

At the close of the fiscal year under review 50 miles of surfacing and an additional 10 miles of grading had been completed, leaving a matter of 18 miles

of right of way to be constructed. The construction of a number of large bridges and culverts was involved in the building of the 60 miles of road referred to, in addition to a great deal of excavation work for ditches.



Rock Drilling, Mile 49—Golden-Revelstoke (Big Bend) Highway.

Expenditures on account of the construction of this road since the inception of the work in 1929 to the close of the fiscal year 1933-34 amounted to \$1,055,970.48, made up as follows: special road vote account, \$925,617.86; unemployment relief account, \$130,352.62.

Golden-Donald Highway.—The construction of this road as a relief project was undertaken by the Dominion pursuant to an agreement entered into with the province of British Columbia. Work commenced early in July, 1933, and from then operations continued until late in December when the camps were closed. Fair progress was made during this period with the work of clearing and grubbing right of way; excavation of rock; constructing culvert emplacements, and general road maintenance.

A special advance of \$57,000 was authorized under the Relief Act, 1933, for the prosecution of this project, but this credit was drawn on to the extent of only \$10,983.93.

Expenditure on Relief.—For the relief of single, homeless men, appropriations totalling \$1,050,000 (exclusive of the Golden-Donald advance referred to previously) were authorized under the Relief Act, 1933, for disbursement by the Department of the Interior on public works in the National Parks of Canada and on the Golden-Revelstoke highway. Additional advances, totalling \$70,000, were authorized for the relief of married, permanent park residents. These funds were drawn on to the extent of \$67,471.82 during the fiscal year under review, leaving an unallotted balance of \$2,528.18 as at March 31, 1934.

In the following tabulation the two classes of labour appear separately since in the case of single, homeless men, the computation is based on *man-days*

of relief, and in that of married, permanent park residents, time is calculated on the basis of *man-days of work*, all figures being for the fiscal year ended March 31, 1934:—

PRELIMINARY STATEMENT RESPECTING UNEMPLOYMENT RELIEF IN
NATIONAL PARKS

SINGLE HOMELESS MEN

Region	Man-days of relief	Compensation (cash allowances, food, clothing and medical services)	Expenditure (general account, including material and supplies)	Totals	Authority for expenditure
		\$ cts.	\$ cts.	\$ cts.	
Banff-Jasper Highway.....	91,469	109,205 17	33,445 57	142,650 74	Order in Council— P.C. 730, April 20, 1933, \$250,000; P.C. 1374, July 11, 1933, \$250,000; P.C. 2228, October 26, 1933, \$250,000; P.C. 59, January 11, 1934, \$300,000.
Golden-Revelstoke Highway.....	25,590	42,647 79	47,946 74	90,594 53	
Banff National Park.....	40,145	36,063 93	14,691 93	50,755 86	
Banff Administration Office.....	1,788	6,556 78	2,689 29	9,246 07	
Jasper National Park.....	71,310	52,201 77	17,938 06	70,139 83	
Waterton Lakes National Park....	40,437	42,383 70	18,252 72	60,636 42	
Kootenay National Park.....	6,314	7,620 10	5,109 94	12,730 04	
Elk Island National Park.....	35,763	35,892 95	14,668 81	50,561 76	
Prince Albert National Park.....	197,274	183,821 83	56,682 06	240,503 89	
Riding Mountain National Park...	242,947	238,189 07	70,601 99	308,791 06	
	753,037	754,583 09	232,027 11	1,035,610 20	
Golden-Donald Highway.....	4,289	4,855 57	6,128 36	10,983 93	P.C. 1281, June 28, 1933, \$57,000.

MARRIED PERMANENT PARK RESIDENTS

Region	Man-days of work	Wages	Expenditure (general account, including material and supplies)	Totals	Authority for expenditure
		\$ cts.	\$ cts.	\$ cts.	
Banff National Park.....	16,695	42,773 25	2,609 46	45,382 71	P.C. 805, April 29, 1933, \$25,000; P.C. 2227, October 26, 1933, \$25,000; P.C. 58, January 11, 1934, \$20,000.
Jasper National Park.....	7,045	17,655 29	1,970 08	19,625 37	
Yoho National Park.....	957	2,375 09	88 65	2,463 74	
	24,697	62,803 63	4,668 19	67,471 82	

ROADS, TRAILS AND TELEPHONE LINES

Satisfactory progress continues to be made with this work from year to year and this was particularly marked during the year under review on account of the large expenditure of relief funds on this class of work.

In the following table figures are given indicating the mileage of roads, trails, and telephone lines in each park:—

MEANS OF TRAVEL AND COMMUNICATION

National Park	Roads			Trails	Telephone Lines
	Motor	Secondary	Total		
Banff (including Lake Louise end, Banff-Jasper Highway).....	122	18	140	639	215
Buffalo.....	1	30	31		35
Elk Island.....	13	2	15		
Glacier.....	9		9	105	7
Jasper (including Jasper end, Banff-Jasper Highway).....	104	33	137	716	353
Kootenay.....	63	8	71	121	60
Mount Revelstoke.....	19		19	35	17
Point Pelee.....	7		7		
Prince Albert.....	42		42	270	130
Riding Mountain.....	61		61	200	171
Waterton Lakes.....	24	14	38	225	58
Yoho.....	53	5	58	170	48
Total.....	518	110	628	2,481	1,094

WILD LIFE CONSERVATION

One of the chief objects of National Parks policy is to preserve the original fauna and flora in a state of nature, in order that future generations of our people may not have to think of our distinctive Canadian fauna as of some grand heritage that has been squandered, but may still enjoy the privilege of seeing the actual animals in their original habitat.

In other countries to-day, public-spirited men are bitterly deploring the fact that many species of the native fauna have become nearly extinct, and large sums are being expended in an effort to conserve those that are left.

For the information of those who are interested in game conservation, the following short description of the system employed by the National Parks Branch is given. Each park is divided into a suitable number of districts, each of which is put in charge of a game and fire warden who lives in a good cabin at some strategic point within it. There are seventeen such districts in Jasper Park and fifteen in Banff Park. Besides the home cabin, there are stop-over cabins, about 15 miles apart, along the trails which the warden is required to patrol. All home cabins and many of the stop-over cabins are provided with telephone connection to the Superintendent's office; they are also equipped with fire-fighting appliances, and such other necessities as to enable a warden to travel on his patrol without encumbrances. In the summer he travels by horse and in winter on snowshoes.

In the larger parks there is a supervising warden who is in charge of all wardens under the direction of the Superintendent. All wardens are required to keep a journal and to make regular monthly reports which, after being approved and supplemented by the supervising warden and the Superintendent, are transmitted to Head Office at Ottawa. From the reports received during the year it is evident that most of the wild game in the parks showed a normal increase, and that there were no epidemics of disease among them.

Animals in Fenced Parks.—The wild animals maintained in the fenced parks, notably buffalo, elk, and deer at Buffalo National Park and Elk Island National Park, respectively, and antelope at Nemiskam National Park, have shown a steady increase in numbers. In the case of buffalo, the increase has been so large that it has been necessary to materially decrease their numbers in order that the range might not become overstocked.

A census of animals in fenced enclosures, as of March 31, 1934, will be found in the following table:—

ANIMALS IN FENCED PARKS

Animal	Banff Park Paddock	Buffalo Park	Elk Island Park	Nemiskam Park	Riding Mountain Park	Total
Angora goat.....	1					1
Antelope (pronghorn).....				325		325
Buffalo.....	27	5,014	1,740		32	6,813
Domestic cattle.....		14				14
Elk.....	28	1,162	484		33	1,707
Four-horned sheep.....	6					6
Hybrid (cattalo).....		32				32
Moose.....		105	366		2	473
Mule deer.....		2,300	219			2,519
Rocky Mountain goat.....	1					1
Rocky Mountain (bighorn) sheep.....	5					5
White-tail deer.....					2	2
Yak.....	7	39				46
Totals.....	75	8,666	2,809	325	69	11,944

In the case of bird life, the protection afforded by the Migratory Birds Convention Act and regulations administered by the National Parks Branch, together with enlightened provincial game laws, has borne fruit in abundance and it is conceded that but for these timely enactments, the extinction of some species, now abundant, would have resulted.

FOREST FIRE CONTROL

The incidence of fire, than which there exists for National Parks no greater menace, was negligible during the fiscal year as compared with former years. Outbreaks were few and all fires were suppressed before serious damage resulted. In this respect weather conditions were decidedly favourable during ordinary periods of fire hazard (spring and early autumn).



Roadside Reservoir for Forest Protection.

A total of 60 fires was suppressed at a cost of \$803.38, an average per fire of \$13.39 and the burned-over area amounted to 2,100 acres, an average per fire of 35 acres. In pursuance of arrangements made with the Royal Canadian Air Force, an aeroplane patrol was carried out in Prince Albert National Park and Riding Mountain National Park at intervals during the spring and late summer at periods when the fire hazard was causing anxiety. The air patrol inaugurated some years ago has been of very great value in detecting incipient fires and but for this service serious damage would have undoubtedly resulted on many occasions.

A summary of fires, indicating damage done and cost of extinguishment, in the fiscal year 1933-34 follows:—

GENERAL FIRES

National Park	Fires	Area burned	Cost of extinguishing
	No.	acres	\$
Banff.....	16	6	160 73
Jasper.....	3		17 73
Kootenay.....	4		
Yoho.....	1		6 00
Mount Revelstoke.....	1	3	94 11
Prince Albert.....	6	51	269 20
Riding Mountain.....	17	2,036	182 15
Waterton Lakes.....	2	1	57 37
Buffalo.....	1	3	0 81
St. Lawrence Islands.....	2		7 00
Total.....	53	2,100	795 10

RAILWAY FIRES

Banff.....	5		8 28
Jasper.....	2		
Grand total.....	60	2,100	803 38

LANDSCAPE AND ARCHITECTURE

The Architectural Division of the National Parks Service is responsible for translating into practice the theory of town planning and landscape work as applied to National Parks. The division prepares designs for all public buildings projected in National Parks and also passes upon all plans and specifications for privately owned buildings designed for residential or commercial purposes, bearing in mind always that harmonious relation to local physical characteristics is not the least of a number of important considerations that have to be weighed in every case.

The following are some of the more important Government projects for which plans were prepared during the year under review:—

Banff National Park.—New building at Cave and Basin; completion of existing bathhouse at Cave and Basin.

Jasper National Park.—Bathhouse and swimming pool at Miette Hot Springs; buildings, with layout of grounds, for Patricia Lake auto campsite.

Yoho National Park.—Recreation shelter.

Waterton Lakes National Park.—Public shelter at wharf.

Kootenay National Park.—Addition to bathhouse.

Elk Island National Park.—Quarters for resident engineer; recreation shelters; concession buildings.

Prince Albert National Park.—New museum building; completion of community building; garage; bandstand; addition to Prospect Point subdivision and layout for subdivision at Clare Beach.

Riding Mountain National Park.—Quarters for Royal Canadian Air Force; tennis pavilion; storage building for road equipment; museum showcases; fixtures and furniture for museum and community building; additions to town-site.

Georgian Bay Islands National Park.—Recreational shelter; bathhouse.

PUBLICITY

While many Canadians are personally acquainted with the manifold and specific attractions of the National Parks of Canada, and while it is true that the bulk of informed public opinion endorses whole-heartedly the aims of the National Parks Service, there undoubtedly is need for an ever-increasing interest on the part of the people of this country in the attractions which the National Parks offer Canadians who contemplate a vacation and who might on first thought plan an excursion beyond the borders of the Dominion.

The National Parks Service has been ever sensible of the important position occupied by the National Parks System as a medium for attracting tourists from other countries, and of the influence which these attractions are capable of exerting upon Canadians to spend their holiday time in their own country. The value of judicious publicity also has been recognized, hence the publicity division of the National Parks Branch is constantly active and aggressive.

It is a function of the publicity division to emphasize and direct attention to the recreational and educational advantages to be derived from a sojourn in the National Parks and this is accomplished in many ways, including the lending of motion picture films, lantern slides, half-tone cuts, matrices, and stereotypes; by the distribution of specially prepared press articles, pamphlets, maps, photographs, and souvenirs; through the medium of lectures, supported by showings of motion picture films and slides; by radio broadcasts; and with the assistance of voluntary lecturers and writers. The use of music as an auxiliary has been adopted with gratifying results, and other special publicity aids include exhibits of mounted wild animals, birds, framed oil paintings, photographs, and coloured photographic transparencies.

The following outline of activities indicates some of the more important duties of the division and of the work carried out during the year under review:—

Motion Pictures.—The operation of a motion picture film library containing 95 completed subjects comprising a total of 799 prints, copies being available for distribution in 35 mm. size, and the greater number also in 16 mm. These films (silent type) are produced, edited, and titled in the division laboratory, and released through the medium of loans to various organizations, notably conservation societies, business clubs, universities, churches, schools, and the like, including volunteer lecturers.

Distribution of material is facilitated through the co-operation of various agencies, including clubs, film services, and Government departments. Arrangements for special release have been made with the Canadian Government Motion Picture Bureau; with commercial distributing agencies; and also in co-operation with the Canadian Clubs of British Columbia. At the present time films on loan are in circulation in cities in the United States, Great Britain, France, Austria, Czecho-Slovakia, Holland, Norway, India, Australia, New Zealand, and Hawaii, besides the Dominion. The annual attendance at foreign showings of National Park films is estimated conservatively at one million persons.

The following comparative statement of distribution during the past three years indicates the increasing demand for National Parks films as at March 31, of the years mentioned: 1932, 615 films; 1933, 740 films; 1934, 910 films.

Arrangements have also been made by which National Parks scenic and animal subjects have been adapted to sound, and distributed to theatrical exhibitors. These films are being shown throughout Canada, and in United States, Great Britain, New Zealand, and Australia, also on transatlantic and transpacific steamships.

In this manner excellent publicity has been obtained through channels which otherwise would not be available: The following subjects have been produced in sound: *Grey Owl's Little Brother*; *Let's Go Ski-ing*; *She Climbs to Conquer*; *Grey Owl's Strange Guests*; *Sky Fishing*; *Return of the Buffalo*, and *Animal Alphabet*.

During the past year the film library was augmented by the addition of 14,682 feet of negative film and 109,292 feet of positive film, which included 246 new prints, of which 38 were in 35 mm. size and 208 in 16 mm. Five new subjects were completed and released for showing under the following titles: *White Wings*; *Official Opening of Riding Mountain National Park*; *Ski-ing at Lake Louise*; *Fishing for Tyee*; and *Grey Owl's Neighbours*.

Lantern Slides.—The lantern slide library experienced a steady demand for slides, coloured and plain, depicting the scenic and wild animal features of the National Parks. During the year 713 slides were added to the library and a total of 4,324 slides was loaned for various periods to lecturers, universities, churches, schools, and other organizations in Canada, United States, England, and other countries.

Lectures.—During the year, a large number of addresses, illustrated with motion pictures, were delivered by the Director of Publicity, who also carried out an extensive publicity campaign and speaking tour in Manitoba during the months of June and July, in connection with the official opening of Riding Mountain National Park. A special educational trip to Nova Scotia was further undertaken by the Director of Publicity in February, 1934.

Radio Publicity.—Material for talks on the National Parks of Canada was prepared for the National Broadcasting Company Inc. of the United States, working in conjunction with the Canadian Radio Broadcasting Commission, in connection with programs under the title *Hands Across the Border*. The assistance of this division also was secured by the Canadian Radio Broadcasting Commission in procuring, arranging, and adapting orchestrally, folk songs of the different provinces incidental to the *Parade of the Provinces* programs.

Music.—In recognition of the value of music as a medium of publicity, copies of the following original compositions (written in the publicity division) have been distributed to some fifty bands and orchestras in Canada, Great Britain, and the United States: *Riding Mountain March*; *Yoho Waltz*; *The Athabaska Trail* (Song and band numbers); *International Park March*; *Lac Beauvert Gavotte*; *The Trail Riders' March*; *Manitoba March*; and *Jasper Park March*. Brief program notes, mentioning the National Parks, are issued with the music.

Articles.—Steady demand was experienced for specially prepared articles descriptive of the National Parks of Canada and of the work being carried on in connection therewith, and a large number was sent out to newspapers, periodicals, and magazines, as well as to volunteer lecturers and writers. During the early part of 1933 special articles were prepared in connection with the publicity campaign preliminary to the official opening of Riding Mountain

National Park, and distributed over a six-weeks period to a large number of newspapers in the province of Manitoba. Mounted half-tone cuts, stereotypes or matrices, were distributed with this material.

Pamphlets.—During the year, 58,720 copies of publications descriptive of the National Parks and historic sites of Canada were printed. These included the *Annual Report of the Commissioner for 1933*, 3,000; *Guide to Fort Wellington* (second edition) 6,000; *The Lake Erie Cross* (second edition) 6,000; *Banff, Kootenay and Yoho National Parks* (second edition) 25,350; *Elk Island National Park* (second edition) 18,370 copies. Many requests for literature were received from tourist agencies, travel companies, boards of trade, automobile clubs, and other organizations, and a total distribution was made of 110,190 copies of official publications, in addition to about 7,500 copies of maps and pamphlets printed by tourist organizations.



Mount Ishbel—Banff National Park.

Photographs.—Photographs of National Parks subjects, suitably captioned, were distributed to a large number of newspapers, magazines, writers, lecturers, and others engaged in publicity pursuits, as follows: prints, 7,797; enlargements, 275; special prints, 95. The photographic library was augmented by the addition of 486 negatives and 14,424 prints.

Half-tone Cuts.—More than 200 mounted half-tone cuts, stereotypes and linecuts, were loaned during the year to editors, and publishers.

Exhibits.—In collaboration with the Department of Trade and Commerce and the Canadian National and Canadian Pacific Railway systems, there were on exhibition at the Century of Progress Exposition in Chicago, specimens of mounted wild animals also mounted buffalo heads and buffalo robes; well executed paintings in oil and sketches of National Parks scenes; and framed photographs and coloured photographic transparencies. A special exhibit of buffalo robes, coats, etc. was made at the Royal Winter fair in Toronto, and

with the co-operation of the Dominion Lands Administration an exhibit was placed at the Central Canada Exhibition in Ottawa. At the last named exhibition there were daily showings of National Parks motion pictures.

Special Publicity Work.—Early in 1931 the National Parks Branch secured the services of Grey Owl, naturalist and writer, best known perhaps for his work in the conservation of beaver. Through his association with beaver, Grey Owl assisted in the filming of four of the most remarkable motion pictures ever produced of this enterprising little animal. Pictures on this absorbing subject have been released for showing under the following titles: *The Beaver Family*; *The Beaver People*; *Strange Doings in Beaverland*; and *Grey Owl's Neighbours*. These pictures have also been re-edited for sound production and have been released on theatrical circuits under the following titles: *Grey Owl's Little Brother*; *Grey Owl's Strange Guests*.

Grey Owl as a writer on Nature subjects has a wide following throughout Canada, the United States, and Great Britain. His articles and the moving pictures made possible through his co-operation, have done much to impress people with the significance of the conservation of Canada's valuable wild animal life, and also given prominence to the National Parks of Canada as game sanctuaries.

TOURIST DIVISION

In June, 1933, the tourist promotional activities of the National Development Bureau, together with a number of the staff, were transferred to the National Parks Service. The tourist division, as distinct from the publicity division, functions as a Dominion organization charged with the duty of promoting the tourist business, in which work there is the fullest co-operation with provincial tourist bureaux in making known the scenic beauties and other attractions of Canada where such knowledge is likely to quicken interest in the recreational resources of this country, not only among Canadians here at home, but on the part of potential tourists in the United States, and overseas.

During the year new avenues to increase Canada's tourist business were explored, several new publications were issued and a number of others revised and reprinted, and new contacts formed or old ones renewed with organizations in the United States in touch with prospective tourists.

A progressive follow-up campaign among former applicants for recreational information resulted in the receipt of many requests from persons intent upon a visit to Canada, and of many letters expressing appreciation of information supplied on previous occasions. Careful and systematic contact was maintained with more than 50,000 information bureaux, automobile clubs, chambers of commerce, hotels, banks, service stations, and other similar organizations that cater more or less to the tourist trade. To these organizations was furnished material about Canada and copies of tourist booklets and maps, many thousands of which have been distributed through this agency.

One important factor in the development of tourist travel in Canada has been the wide distribution in United States during the past few years of a series of five road maps indicating the principal highways connecting the two countries; maps that have emphasized the extreme simplicity of including a tour of some portion of Canada when preparing the itinerary of an excursion by automobile. The main map of this series covers the entire Dominion exclusive of the Northwest Territories and Yukon Territory, and includes practically the whole of the United States. The four sectional sheets—*Atlantic*; *Great Lakes*; *Middle West*; and *Pacific*—drawn on a larger scale, cover the southern part of Canada and the northern part of the United States. During the year approximately 150,000 copies of these road maps were distributed with discrimination in the United States. Rapid development in recent years of the highway systems

of both countries has rendered necessary a revision of these road maps, a work involving considerable correspondence, and painstaking study of a large number of provincial and state highway maps.

There was completed during the year the compilation of the new *Eastern* sheet, which will include in more compact form practically the same area as covered by the present *Atlantic* and *Great Lakes* sheets. This work has entailed the plotting of many topographical features previously unrepresented, and considerable redrafting.

An outstanding and distinct feature of the work of the division has been the preparation and careful placement of seasonal articles respecting the different phases of Canada's tourist attractions. During the year seven articles, namely: *Canada, the Year-Round Playground*; *Canada's Atlantic Area*; *Canada's Great Lake Area*; *Canada's Mid-West Area*; *Canada's Pacific Area*; *Autumn in Canada*, and *Winter in Canada*, were given space in United States and Canadian newspapers and magazines in every state and province, thereby creating a keener interest in Canada's vacational facilities. Articles also were prepared, on request, for a number of papers and periodicals. In addition, writers were supplied with information, maps, and illustrative material for articles about Canada which they had in preparation.

Careful contact was maintained with all international conventions held in Canada, and also with conventions held at points in the United States within reasonable travelling distance of Canada. Special articles, suitably illustrated, pertaining to Canada's scenic beauties, sporting facilities, highways system, and many other subjects of interest to potential tourists, were furnished for publication in the official organs of the associations conducting the conventions. This feature of the work also resulted in a large number of requests being made for information from prospective visitors, many of whom intimated that they were planning an extended tour of Canada. During the year thirty-five international conventions called to meet in Canada, and fifty-one in the United States, accepted the offer of this Service to furnish their members with all available information for a trip in Canada.

A notable feature was the large number of requests received for specific information regarding canoe routes, and 9,300 canoe-trip booklets were distributed during the year. The demand has been such that it was necessary to reprint the booklets, and in the interest of economy the series of four booklets was combined under one cover. Favourable editorial comment on the new edition has appeared in a number of leading Canadian newspapers. Particulars, with charts, of several new trips were incorporated in the detailed description of routes, copies of which are available in mimeographed form, while the description of a number of the older routes was revised and brought up to date. During the fiscal year under review, 7,633 copies of this descriptive literature were distributed to parties planning canoe trips in Canada.

Hunters and anglers may be numbered among the highly desirable tourists who visit Canada as their disbursements may include expenditures for licences, transportation, numerous articles of equipment, and frequently the employment of guides and the services of outfitters. During the year two booklets entitled *Sport Fishing in Canada* and *Canada's Game Fields* were printed. These booklets contain much general information regarding the areas throughout Canada where game animals and game fish occur. A summary of the hunting and angling regulations of every province of the Dominion also was prepared in mimeographed form in response to requests for the hunting and fishing laws of Canada. Mimeographed memoranda detailing the recreational resources of Canada were revised and new literature prepared on this important subject.

The division also received a large number of requests for lantern slide lectures, photographs, cuts, and transparencies, depicting the recreational resources

of the Dominion. The demand for these services was mostly from universities, colleges, publishers, and writers in the United States and Canada but many requests of a like character also were received from various European countries. Window displays in the form of selective groups of photographs were supplied to automobile clubs and tourist travel bureaux. This has proved a valuable form of publicity. A number of lantern slide lectures of about twenty minutes duration each, covering some phase of Canada's recreational resources, were prepared for use at the Century of Progress Fair at Chicago. In addition, new pictorial material was obtained, and new lantern slides and transparencies made for lecture and display purposes.



Mount Rundle from Stoney Squaw Road (under construction)—Banff National Park.

Articles averaging three hundred words each, regarding the tourist attractions of each of the provinces, Yukon Territory and Northwest Territories, were prepared in co-operation with the Publicity Division for the Canadian Radio Broadcasting Commission and used in exchange programs by the National Broadcasting Company Inc. through a weekly half-hour coast-to-coast network throughout the United States and Canada. Schedules of international and interprovincial passenger and automobile-carrying ferry services also were prepared and distributed to leading automobile associations for their use and that of their affiliated clubs and branches.

During the year more than one quarter of a million copies of tourist maps and booklets were systematically and judiciously distributed, principally in the United States. Moreover, through co-operation with provincial tourist bureaux, and railway and steamship companies, large numbers of maps and folders were distributed among individual inquirers. As usual many thousands of requests were received for special information which is not covered by printed publications and all applicants were given the most reliable assistance possible in mapping their Canadian itinerary.

REVENUE

Receipts from public utilities and other sources of direct revenue in National Parks amounted to \$201,051.12 for the fiscal year ended March 31, 1934, compared with \$202,723.67 for the preceding twelve months, a decrease of less than one per cent.

BANFF NATIONAL PARK

Banff was the first National Park to be established and was originally named Rocky Mountains Park. It has an area of 2,585 square miles of high mountain territory on the east side of the Rocky mountains, comprising the whole northerly watershed of the Saskatchewan river.

Banff Park is known to millions of people who have visited it, or passed through it, at one time or another. To those who find inspiration, enjoyment, rest and health amidst mountains, all mountains are beautiful and all are different, but there are thousands of people who revisit Banff year after year to whom the words "Banff" and "mountains" are synonymous.

One of the special attractions of the park is the town of Banff, with its famous mineral hot springs, its two excellent bathhouses at the Cave and Basin and the Upper Hot Springs, respectively; its outstanding hotels, museum and zoological garden, its golf course, and its many scenic driveways. Here also are the headquarters of the Alpine Club of Canada, at which many alpine climbers of international fame have stayed on their way to fresh climbing victories.

Of the scenic attractions in this great park, where every vista is scenic, lake Louise is probably the best known, while the great Columbia glacier is perhaps the most outstanding.

With such advantages, it is not surprising that Banff National Park should be a Mecca for tourists, although the general decline in tourist travel since 1929 has had its repercussions at Banff as elsewhere. Returns for the year under review, however, reveal a decrease of only 7,405, or 5 per cent, in the number of tourists compared with the previous year, which fact may be construed favourably under the circumstances.

Tourist travel for the fiscal year 1933-34, as compared with the previous year, is reproduced in the following table:—

VISITORS TO BANFF NATIONAL PARK

Route	Motor Vehicles		Passengers	
	1933-34	1932-33	1933-34	1932-33
WESTBOUND				
Via East Gate (Banff National Park).....	30,694	30,983	100,649	99,211
EASTBOUND				
Via Radium Hot Springs (Kootenay National Park)...	5,292	6,338	12,857	19,015
Via Leanehoil Gate (Yoho National Park).....	2,108	2,242	3,758	6,443
Tourists for Banff by rail—East and West (estimated)			15,000	15,000
Totals.....	38,094	39,563	132,264	139,669

The various activities of the park for the year are reviewed in the following passages:—

Information Bureau.—A total of 13,197 inquiries of all descriptions were dealt with during the tourist season which opened on May 22, and closed September 30, 1933. The service rendered by the bureau has been of great assistance to persons seeking information concerning the park, routes, etc., and one respecting which many appreciative comments have been received.

Park Addition.—On October 31, 1933, the province of Alberta transferred to the Dominion portions of Sections 13 and 14, in Township 25, Range 11, West of the Fifth meridian, outside the boundary of Banff National Park comprising an area of 209 acres, and that portion of the original road allowance lying east of this area for the purpose of providing a suitable site for an entrance to the park on the East.

Bathhouses.—The Cave and Basin bathhouse was very well patronized during the year with a total paid attendance of 34,454 bathers compared with 34,222 for the corresponding period last year, an increase of 232. The Upper Hot Springs bathhouse was also popular with 44,570 bathers. The supply of mineral water was ample for the requirements of both baths and swimming pools.

Campgrounds.—At the Tunnel Mountain campgrounds accommodation was provided for 5,477 motor vehicles carrying 20,725 campers during the season of 1933, compared with 6,536 motor vehicles and 23,573 campers for the season of 1932, a decrease of 2,848 campers.



Panorama of Banff and Spray River Valley from Stoney Squaw Mountain—
Banff National Park.

Licences and Permits.—A total of 13,577 licences and permits was issued during the fiscal year 1933-34, as follows: Licences—transient automobile licences (with camping privileges), 12,279; park resident automobile, 373; chauffeur, 141; dog, 103; hotel and boarding house, 164; automobile livery, 71; business, 58; miscellaneous, 273. Permits—timber, 50; camping, 52; grazing, 13. In addition to the foregoing 16 building permits were issued for an estimated property value of \$12,700.

Public Health.—It is gratifying to be able to report that no cases of contagious or infectious disease were reported within the park during the year. In addition to the usual milk and water analyses, which are made periodically, milch cows to the number of 190 head underwent the tuberculin test and were given a clean bill of health.

Mosquito Control.—A total of 3,612 gallons of oil was distributed over marsh areas and landlocked waters during the season with satisfactory results. Further preventive measures were taken to control the mosquito nuisance, including the construction of 10,200 feet of ditching and the concentration in ponds of the flow of a number of springs to facilitate spraying operations.

Roads and Bridges.—Maintenance and repairs alone marked the principal activities of the year on ordinary account, although a certain amount of construction was carried out as a measure of unemployment relief, which is reviewed elsewhere in this report. The regular program of work included widening of roads and reduction of curves, also necessary repairs to traffic bridges. A total of 84 miles of road was treated with oil to lay the dust.

Trails and Trail Bridges.—Several wash-outs on the Spray River fire road necessitated considerable work to repair and about 300 yards of new trail were constructed. On the Cascade River fire road construction was undertaken of the approaches to the new bridge and the trail was widened, graded and gravelled. General maintenance work was undertaken on Bryant Creek, Marvel Lake, and Brewster Creek trails; ski trail at the head of Brewster creek, and Redearth Creek fire road, comprising, in all, 36 miles of trail and 8 miles of fire road. Dolomite trail from Bow Park to Siffleur River, a distance of 18 miles, was constructed in July.

Forest Telephones.—New telephone line construction during the season of 1933 was limited to 2½ miles on the line from Lake Louise to Bow Pass. Five miles of the Castle-Vermilion forest telephone line were rebuilt.

Fires.—A total of 21 forest fires occurred during the period of seasonal hazard but prompt action on the part of the warden service resulted in all outbreaks being brought under control without serious damage to forest cover. Five of these fires originated on the railway right of way, being caused by transients, and 16 were general fires resulting from a variety of causes, *i.e.*, lightning, carelessness of campers in failing to extinguish campfires, etc.

A total of 14 fires occurred in the town of Banff, with an estimated property loss of \$47,466. These fires included 2 dwellings and 3 business establishments, the most notable loss in the latter case being Bretton Hall hotel which was totally destroyed on Friday, April 7, 1933. The destruction of this hotel removed one of the few remaining links with the early '80's. Another fire destroyed the tea room at the Cave and Basin, a private concession.

The Banff volunteer fire brigade, which handled all town fires, spent a total of 192 hours in fire-fighting. The brigade, which numbers 22 officers and men, did excellent work.

Banff Museum, Zoo, and Animal Paddock.—A total of 32,769 people visited the animal paddock, one of the important attractions at Banff. Animals on exhibition included the following: 27 buffalo, 28 elk, 7 yak, 1 Angora goat, 5 Rocky Mountain (bighorn) sheep; 1 Rocky Mountain goat, and 6 four-horned sheep. The Zoo likewise attracted large numbers, children particularly being much interested in the wild life exhibits, which included: 1 polar bear, 2 grizzly bear, 1 black bear, 1 cinnamon bear, 1 cougar, 1 Canada lynx, 4 timber wolf, 5 coyote, 3 badger, 3 marten, 2 gopher, 3 porcupine, 2 raccoon, 2 muskrat, and one specimen each of ermine, mink and marmot. Specimens of bird life included: 2 great-horned owl, 13 Canada goose, 1 golden eagle, 2 crow, and 4 fan-tailed pigeon.

Donations of Wild Life.—The following specimens were captured during the year and donated as indicated: Rocky Mountain sheep; City of Virginia, Minn., U.S.A., one pair; Calgary Zoological Society, one pair. One beaver and one timber wolf also donated to Calgary Zoological Society.

Game.—The great increase in game that has taken place in the park has naturally included an increase in predators. Of course in a park all types of the native fauna must be preserved but of recent years attention has had to be given to the problem of preventing the predators increasing in numbers beyond a reasonable proportion to the other types of mammals. Special efforts have therefore been made to reduce the number of coyotes, wolves, and cougars.

Banff Fish Hatchery.—The policy of restocking barren or depleted park waters by the introduction of fish fry was continued, with excellent results. In this connection fish fry were distributed during the year as follows:

Park waters: salmon trout, 175,154; rainbow trout, 94,000; cutthroat trout, 844,220; speckled trout, 92,665; total, 1,206,039.

Provincial waters: Lock Leven trout, 440,160; cutthroat trout, 363,000; rainbow trout, 391,195; speckled trout, 86,220; total, 1,280,575.

In addition to the foregoing distribution, speckled trout fry were disposed of as follows: donated, 2,545; sold, 10,000, total, 12,545; a grand total of fry of 2,499,159. Approximately 15 000 people visited the hatchery, which was a source of great attraction to tourists during the season.

Sports and Pastimes.—Ski-ing as a sport has developed greatly in recent years at Banff and throughout its mountain environment, and the number of participants from British Columbia and from the Prairie Provinces has been most encouraging. Completion of the Stoney Squaw road will be appreciated by all ski enthusiasts as this road, now under construction, will enable automobiles to be driven within a short distance of the Mount Norquay Ski Club House and thus enhance the attractions of this already popular establishment as a week-end resort. The Canadian Pacific Railway Company's camp at mount Assiniboine has been leased by private interests with the intention of operating it from Banff as a recreation resort in summer and as a ski camp in winter. At Skoki Valley, about 12 miles north of Lake Louise, the Ski Club of the Canadian Rockies has provided accommodation for guests in a number of log huts surrounding a central community building. Guests at these quarters, which included several parties from England, greatly enjoyed the opportunity afforded them of many excellent runs.

Speed-boat races were held for the first time in the history of Banff on lake Minnewanka on Dominion Day, July 1, 1933. Aquaplaning and other water sports featured the occasion which was marked by the presence of a large number who were spectators of the different events.

The Indian Days Celebration was held in Banff on August 17-19. The usual parade of Indian chiefs was held each morning and proved a great attraction to the many visitors present. Sports were held each afternoon on the racetrack at the Animal Paddocks and all events were keenly contested by the Indians. Concerts were held in the evening in front of the grandstand on the sports grounds of Banff Springs Hotel in the presence of a large audience.

Sight-seeing by aeroplane was another local feature last year that was greatly enjoyed by many people who acquired an entirely new perspective of the mountains by this new mode of travel. These trips were organized by private interests and in charge of an experienced pilot who made daily aerial tours over Spray lakes, mount Assiniboine, Marvel lake, Magog lake and many other features of interest.

A new organization of hikers in the Canadian Rockies was established in August, 1933, and named The Skyline Trail Hikers. Members of the new organization made their initial four-day hike August 4-7, and like its contemporary The Trail Riders of the Canadian Rockies the newer club promises to become a very popular institution, not only in the community which has Banff as its focal point, but wherever this form of recreation has its devotees.

Banff Winter Carnival was held during the period January 31-February 3, 1934, but, unfortunately, due to the unseasonable mildness of the weather, a number of events on an excellent program had to be cancelled, the condition of snow and ice rendering participation therein unsafe. Apart from this the carnival, well organized as usual, was a success.

Banff Curling Club held its annual bonspiel during the week commencing January 29, but, as in the case of the carnival, ice conditions were unseasonably bad.

Activities of the Alpine Club of Canada are reviewed in the Appendix to this report.

Conventions.—Banff National Park was a favoured resort during the year as the meeting place of a considerable number of organizations, including such national and international bodies as the following: Oxford Group, April 5-9; Fifth Pacific Science Congress (post-tour), June 18; School of Dramatic Art (Alberta), two weeks, commencing August 7; Institute of Pacific Relations, August 14-18. Included in the personnel of these bodies were representatives—statesmen, scholars and diplomats—of many foreign countries bordering on the Pacific ocean.

JASPER NATIONAL PARK

Jasper is the largest of the National Parks of Canada, having an area of 4,200 square miles and comprising the entire headwaters of the Athabaska river system flowing into the Arctic ocean.

During the year under review there were 13,489 visitors to the park as compared with 15,308 for the previous year. Distinguished visitors included Their Excellencies the Governor General and the Countess of Bessborough who spent three weeks in the park.

The development of the town of Jasper, headquarters of the park, has proceeded systematically in accordance with approved park standards, coupled with a due regard for its beautiful setting. During the year the general appearance of the town was greatly improved by the planting of conifers (evergreens) on many of its boulevards. Streets were repaired and maintained in first-class condition throughout the tourist season, and road oil applied to bind the surface and keep down dust.

The water supply of the residents of Jasper is obtained from Cabin lake. The waterworks system was maintained in good condition and there was no interruption of services. There are 271 house-connections with the permanent water mains but in summer the system is augmented by a temporary service in areas not at present connected with the permanent supply. Electric lighting and power services were operated without interruption, and current was used in 334 premises in addition to maintenance of the street lighting system. Eighteen permits to build or extend existing facilities, with a property value of more than \$11,000 were issued during the year.

Licences and Permits.—Fifteen hundred and forty-nine (1,549) licences and permits were issued during the year, compared with 1,512 for the corresponding period last year, as follows: Licences—Transient automobile, 716; park resident motor vehicle (yearly), 311; chauffeur, 88; shop 53. Permits—Timber, 57; camping, 49; miscellaneous, 275; total, 1,549.

Roads and Bridges.—Some 150 miles of road, consisting very largely of all-weather standard, were under construction or maintained during the year. A new bridge of 35-foot span was thrown across Whistler creek and the approach straightened and improved. Work was commenced on the erection of a new bridge over the Astoria river. This bridge will have an arch-span of 76 feet and a deck length of over 139 feet. Other works include maintenance and improvement of the Maligne Canyon, Pyramid Lake, and Medicine Lake roads.



Steel and Concrete Bridge over canyon at Athabaska Falls—
Banff-Jasper Highway (Jasper end).

Campgrounds.—Good progress was made with the construction of the Patricia Lake automobile campsite, thirty-six acres of which were cleared and the debris burned. The main street was graded for a length of 2,500 feet. Four blocks were surveyed and staked, and five cross streets laid out. Four kitchen-shelters of standard park design were constructed. Five hundred conifers were planted along the west side of the entrance road, and on the bench near Patricia lake, to enhance the natural beauty of the campsite.

The appearance of the lake itself has been greatly improved by the raising of the water to its original level. During the past twenty years subsidence of the lake waters from causes yet undetermined injured the appearance of the foreshore. To overcome this condition and at the same time to control the seasonal flooding of Pyramid lake a flume was constructed and a ditch excavated to divert the surplus water of Pyramid lake into Patricia lake. The result has been eminently satisfactory.

At the Cottonwood Creek automobile campsite two standard kitchen-shelters were built and a temporary water supply provided. Each kitchen was equipped with a standard stove. Tables and benches also were constructed.

Good progress was made with the Jasper section of the Banff-Jasper highway, approximately fifty miles of it now being in use.

Trails.—In the park there are 395 miles of standard trail, 242 miles of pack trail, and 79 miles of Indian trail. These trails extend to all sections of

the park and their maintenance for emergency fire calls as well as for ordinary patrolling is most important. The warden staff kept these avenues of travel clear of debris and repaired throughout.

Telephone System.—Three hundred and eighteen miles of forest telephone line were patrolled and maintained, and the superintendent was at all times able to keep in touch with the wardens.

Fire Control.—No damage occurred to forest cover from fire during the year. There were two railway and three general fires, due to carelessness on the part of campers and smokers, but in each case the outbreak was detected quickly and brought under control.

Game.—The natural increase of certain species during the past year was rather below normal, although all species were found to be abundant and in excellent condition. A very encouraging incident was that, for the first time in many years, caribou were seen feeding along the Edmonton highway a few miles from Jasper. At one time caribou ranged all over what is now Jasper Park, but, before this area became a park they were driven off the southerly part of their range by excessive hunting. They still exist in large numbers in the northerly part of Jasper Park and in the country to the north of it, besides which there has been a more or less isolated band of caribou in Tonquin pass. It is gratifying that they are extending their range southerly. On the other hand elk are advancing from the south and are rapidly increasing in numbers throughout Jasper Park.

In Jasper as in Banff special attention has had to be paid to the question as to just how far the officers should go in reducing the number of predatory animals and in this connection it may be stated that the attitude of the Parks Service in regard to wild life is to conserve all wild animals and to make of the National Parks great wild life sanctuaries—not game preserves. With this object in view, all wild life in the National Parks is fully protected from being hunted and killed by man, and all that remains to be done is to guard against disease or overstocking of the feed range, and to preserve as far as possible a natural balance as between the numbers of predator and non-predator animals. In the long run the laws of nature do in fact tend to preserve the natural balance among the animal population, subject however to many violent fluctuations due to migrations, disease, and variation of seasonal climatic conditions and food supply. In order to minimize within reasonable limits these periodic upsets of a normal relationship between predators and non-predators it sometimes becomes necessary to exercise predator control, namely to reduce the number of predators within an affected area.

In this connection however, it has always to be kept in mind that the weight of scientific opinion, based on the observations of eminent naturalists and biologists, tends to prove that the extermination of all predatory animals is actually inimical to the conservation of herbivorous animals. Where extermination of predators has been carried to excess, the first result has been the overstocking of the range which has caused a food shortage with resultant evils of deterioration in stamina, loss of fertility, and epidemic disease.

Fish Culture.—Jasper fish hatchery carried out the hatching of a large quantity of eggs of speckled trout and rainbow trout, which were distributed in barren lakes and were also used to replenish waters previously stocked.

The distribution of fingerlings of the rainbow trout in lakes between the Whirlpool river and Athabaska falls, also between Athabaska falls and Sunwapta and Chaba rivers, has proved a pronounced success. Trout caught from these plantings weighed as much as $6\frac{1}{2}$ pounds.

A further distribution was undertaken of 120,000 trout fry in local waters. Amethyst and Moat lakes also were further stocked with 83,437 Kamloops trout fry from the Jasper hatchery.

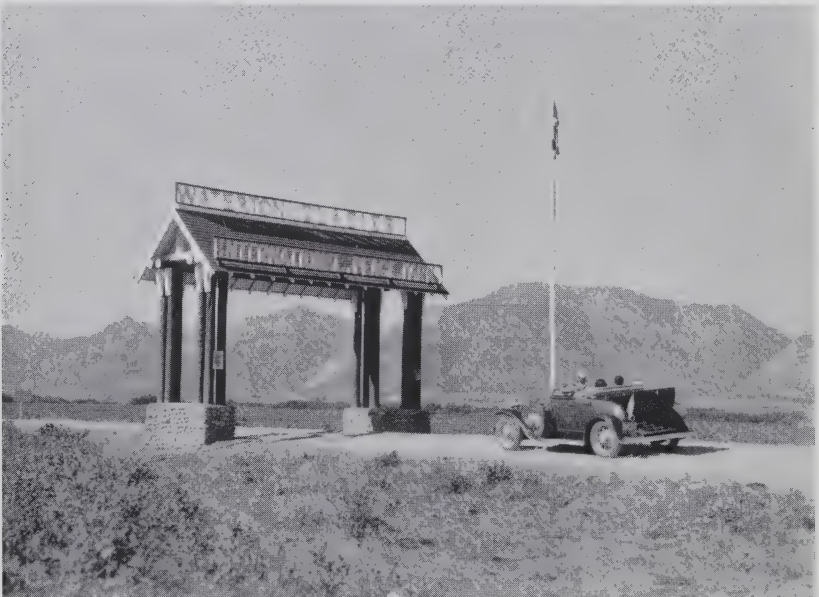
Recreation.—The park, in addition to its claims as an Alpine resort of great interest, is fully equipped to meet the needs of the ordinary tourist who may seek relaxation in golfing, tennis, boating, swimming, hiking, and riding, and the fullest advantage was taken of these facilities by those who visited the park during the summer. Curling, skating, and hockey were participated in during the winter with pronounced success. The winter of 1933-34 was extremely favourable for ski-ing and many experts of this sport ventured on interesting mountain trips. A local camp was established at the Tonquin valley and week-end trips were a popular feature. The annual bonspiel of the local curling club was a marked success.

WATERTON LAKES NATIONAL PARK

(Canadian Section, Waterton-Glacier International Peace Park)

There was a decrease in the number of tourists from United States during the year under review. On the other hand, tourists of Canadian registry increased considerably, resulting in a net decrease of only 7 per cent in Park visitors as shown by the following figures: 1932-33, motor vehicles, 9,151; passengers, 35,334; 1933-34, motor vehicles, 8,998, passengers, 32,844.

Townsite of Waterton Park.—Municipal activities of the townsite included general maintenance of streets and sidewalks, and the abatement of the dust nuisance by sprinkling the streets with road oil. The walk along the lakeshore was levelled and graded throughout. An extension of the wharf was commenced and work started on a wharf shelter. Construction of a rock retaining-wall along the south shore of Steamboat bay was begun to arrest erosion. Three new buildings were erected by residents of the town.



Entrance Gateway—Waterton Lakes National Park (Canadian Section, Waterton-Glacier International Peace Park).

Information Bureau.—A total of 5,950 inquiries was dealt with and the service rendered during the tourist season was much appreciated by visitors.

Campgrounds.—There was no noticeable lessening of activity at the campgrounds until weather conditions had become unfavourable for camping. The improvements effected in the matter of kitchen-shelters and sanitary conveniences were greatly appreciated by the various camping parties.

Roads and Bridges.—Maintenance work only was done on the main roads, which were graded and resurfaced where necessary. The Main Entrance road was gravelled and also widened in places. Visibility was improved by cutting out brush on curves. Pass Creek bridge was redecked throughout. The Akamina road was much improved by widening some of the narrower sections and increasing the banking of curves. A bridge at Mile 2 was replaced and the curve at this point reduced. The Pass Creek road was gravelled and graded; sections of the road were widened also and a number of curves reduced. Motoring on this road has been very popular with tourists, many of whom have remarked on the beauty of the drive to Red Rock canyon.

Construction of the Belly River road was proceeded with during the year as an unemployment relief project. This road is designed to connect Waterton Lakes Park with Glacier National Park in Montana (units comprising the Waterton-Glacier International Peace Park) and promises to provide one of the most attractive drives in the district.

Trails and Telephones.—All trails were maintained in good condition for tourist travel and for fire patrol purposes. On South Kootenay trail one mile was relocated as affording improved grade, and Red Rock Canyon trail was extended a quarter of a mile to connect with South Kootenay trail. Forest telephone lines were maintained and extension made to relief camps on the Belly River road project, and also to the relief camp at Cameron Lake.

Agriculture.—Seventy-five tons of hay were cut and this was baled and stored for winter feed of Government live stock. Grazing permits, covering a total of 1,560 head of live stock, were issued during the year, an increase of 92 compared with the previous year.

Fire Control.—Only two fires occurred, both of which were suppressed without serious damage.

Game.—All species of game animals appear to be increasing. Rocky Mountain goat and sheep were quite plentiful and numbers were seen by wardens and visitors in travelling about the park. Mule deer and elk are in good condition and very plentiful. The latter may be often seen grazing on ranch lands outside the park. Bear were less numerous. The smaller fur-bearers, notably beaver, appear to be increasing, likewise mink and marten. Rabbit were more plentiful than they have been for several years. Predatory animals do not appear to have been a serious problem although coyote were fairly numerous. Wolf and lynx were scarce. Game birds were quite plentiful and show little variation in numbers compared with previous years. All species of game came through the winter well.

Recreation.—There are excellent facilities for sports and recreation at Waterton Lakes Park and the facilities provided tourists in this connection were well patronized during the season. Four tennis courts are kept in perfect condition for play without charge to the public and their constant use indicates the popularity of this sport. The bathing beach at lake Linnet attracts larger crowds each succeeding year. A boom of logs was drawn across the lower end of the lake for the safety of non-swimmers and juveniles. A lifeguard was in daily attendance during the season. The golf course was extremely popular. Originally of nine holes, the course has been extended by the construction of an additional nine holes, and it is expected that the full course of eighteen holes will be ready for play during the season of 1934. Fishing was a favourite pastime of

visitors and many excellent catches were reported during the season. Alderson and Carthew lakes were popular and good catches were made of cutthroat trout. Pass creek, being easy of access, was much frequented by anglers. The fishing in Belly river was reported to be good.

YOHO NATIONAL PARK

Registrations at the Leancoil entrance (West gate) for the 1933 season—May 13 to October 31—numbered 5,244 motor vehicles carrying 13,688 passengers, compared with 5,792 motor vehicles and 17,093 passengers for the corresponding period in 1932, a decrease of 3,405. Of this total Canadian cars numbered 4,609 carrying 11,990 persons; and cars from United States localities numbered 635, carrying 1,698 persons.

Campsites.—There was no appreciable diminution of activity at the various campgrounds located in the park.

Administration.—The regular program of work was limited to maintenance and necessary repairs. Branch roads were opened up, including the Yoho, Emerald Lake, and Ottertail roads, and maintenance and improvement work was carried on throughout the season on all roads. Road oil was distributed in accordance with seasonal requirements.

The Kicking Horse highway, main road throughout the park, was maintained in good condition at all times, sections of the thoroughfare being widened and resurfaced, and curves reduced. For better direction, a specially constructed sign was erected where the road to the Yoho valley branches off the Kicking Horse highway. This structure because of its ornamental design is an outstanding landmark indicating the turn into the road leading to the Yoho valley. Maintenance and improvement of trails included work on the following: Emerald Lake, President Glacier, Summit Lake, Lower Twin Falls, Upper Twin Falls, Little Yoho, Amiskwi, and Yoho Glacier. On the Emerald Lake trail a new bridge was constructed and the centre span of the bridge over the Yoho river was strengthened by a specially designed truss.

Fire Control.—At no time during the year was the fire hazard serious. There were no railway fires and only one general fire, which was extinguished without loss.

Automobile Bungalow Camp.—A concession to build and operate a bungalow camp, the first of its kind in the park, was granted during the year, and a site has been selected at the junction of the Yoho road with the Kicking Horse highway. The operator proceeded immediately to erect the necessary buildings in accordance with plans prepared under the supervision of the Architectural Division of the National Parks Service, and satisfactory progress was made with their construction before winter set in.

Fish Culture.—A number of lakes and other park waters were restocked with fish during the year under the supervision of the Superintendent of Banff Fish Hatchery, involving the distribution of 94,000 rainbow trout fry as follows: Kendall creek, 5,000; Emerald lake, 15,000; Ross lake, 5,000; Sherbrooke lake, 20,000; Linda lake, 10,000; Wapta lake, 15,000; Marpole lake, 8,000, and lake O'Hara, 16,000. Fry planted in previous seasons have done well and good fishing may be obtained now throughout the season.

Game.—Wild life is abundant and an increase in numbers of game animals is observed. The small fur-bearers are plentiful. Predatory animals, although numerous, do not appear to constitute a serious problem. However, a successful effort is being made by the warden staff to reduce the number of coyote.

GLACIER NATIONAL PARK

Glacier National Park is one of the most scenically wonderful of all the mountain parks and the day will come when it will be the Mecca of those who prefer the solitude and quietness of the last real wilderness to the more highly developed centres of recreation. At the present time it may be regarded as being held in trust for future generations.

Owing to the fact that there is no motor highway giving access to the park, and no suitable accommodation for tourists, since the famous old Glacier House was burned some years ago, it is estimated that no more than a thousand tourists visited the park last year. Work during the year was restricted to maintenance of existing services only.



Alpine Party Descending Mount Tupper—Glacier National Park.

Game.—Conditions with regard to wild life are satisfactory. Rocky Mountain goat were plentiful and numbers of this interesting species were observed ranging in many sections of the park. Mule deer, moose, and caribou were numerous, the latter particularly in the Flat Creek area. Grizzly bear and black bear were abundant but caused no trouble. Evidence also points to an increase in the number of beaver, marten, and mink.

Fire Control.—No fires occurred in the park during the year.

KOOTENAY NATIONAL PARK

A total of 10,113 cars with 32,798 passengers entered the park at Radium Hot Springs during the fiscal year 1933-34 compared with 11,996 cars and 34,924 passengers during the corresponding period last year. Of this number 71 per cent were Canadians and the remainder from the United States.

Kootenay National Park is becoming increasingly well known for the curative properties of its mineral waters. The swimming pool at Radium Hot Springs was well patronized during the period covered by this report with a bathhouse attendance of 17,217 as compared with 17,908 for 1932-33.

Campgrounds.—The growing partiality of tourists for camping was clearly reflected in returns from the various campgrounds in Kootenay National Park during the year. At Red Rock campsite, near Radium Hot Springs, 3,038 motor vehicles carrying 9,101 persons, were accommodated for varying periods throughout the season. A corresponding activity was noted at other campgrounds.

Park Development.—The Banff-Windermere highway, principal thoroughfare through the park, was maintained in its usual excellent condition all season. Many improvements were made by reducing grades and correcting the alignment throughout. Four new bungalow cabins were completed at Radium Hot Springs and three more at Vermilion Crossing, bringing the total number of cabins of this type up to 41, all of which were occupied for the greater part of the season.

Fire Control.—Owing to generous spring rains the situation in regard to forest fires was never serious. Four fires were reported, but in every case the outbreak was brought under control without damage.



On the Banff-Windermere Highway—Kootenay National Park.

Game.—Wild life is in excellent condition. Moose and elk are quite numerous but the number of white-tail deer has been reduced, a fact explained probably by the migratory habits of the species, and resultant destruction during the hunting season in areas not governed by sanctuary conditions. Rocky Mountain sheep also are numerous.

MOUNT REVELSTOKE NATIONAL PARK

A dominating feature of Mount Revelstoke National Park is the magnificent 18-mile scenic highway which has been constructed up the mountain. From the summit of the mountain a remarkable panorama may be obtained of the whole countryside for many miles around. The park is well served by motor roads from western and southern points and, when construction is finished on the

Golden-Revelstoke Highway now being built as the final link of the Trans-Canada Highway, this park will be an important attraction to Trans-Canada tourists.

The introduction by the Canadian Pacific Railway Company of special rates on automobiles shipped by rail over the gap between Golden and Revelstoke met with instant success from a Parks standpoint, a total of 368 cars, carrying more than 1,000 persons, entering the park by this route. Taking account of the numbers who entered the park by this means, it is estimated that approximately 6,000 persons paid the park a visit during the year covered by this report.

Administration.—No extensive program of works was projected, work being limited generally to improvement of existing facilities. This included repairing and widening of the mountain road, and the completion of the "fill" at Bridge creek, the latter event being the culmination of three seasons of work in eliminating the long trestle bridge over the creek. Another feature which doubtlessly will be of interest to tourists was the measuring of the mountain road and the setting up of sign posts at every mile. These, in addition to giving mileage, record the elevation at the point so marked.

Game.—There was a satisfactory increase in wild life, particularly caribou and deer. Black bear were plentiful and grizzly bear were to be observed quite often on the higher reaches. Grouse were noticeably on the increase.

Fish Culture.—For the first time in the history of the park two lakes were stocked with fish, when 15,750 cutthroat trout were planted in Millar lake and 5,250 in Eva lake. This distribution was undertaken on the recommendation and under the supervision of the Superintendent of Banff Fish Hatchery.

Fires.—Only one forest fire occurred during the year, this outbreak having been caused by lightning towards the end of August. The fire was brought under control quickly, and the damage was negligible.

Recreation.—The splendid ski-hill, for which Revelstoke National Park is justly famous, was further improved. The Annual Ski Carnival, which has become the feature of winter life at Revelstoke, was held on February 6-7. The various events were keenly contested and although no new records were established—weather conditions not being favourable—the Carnival was one of the most successful events of its kind ever held locally.

PRINCE ALBERT NATIONAL PARK

A total of 5,475 motor vehicles carrying 19,126 passengers entered the park during the year, compared with 7,389 vehicles and 27,007 persons for the corresponding period the previous year. Every effort is being made to quicken interest in the park and to stimulate travel and with the business revival now developing it is confidently expected that Prince Albert Park's many attractions will bring about a rapid increase in visitors. In addition to Hon. Thomas G. Murphy, Minister of the Interior, who paid an official visit to the park, distinguished visitors included the Rt. Hon. W. L. Mackenzie King, Hon. J. T. M. Anderson, Premier of Saskatchewan, and Hon. Robert Weir, Federal Minister of Agriculture.

Citizens of Montana and the Dakotas, on a goodwill tour sponsored by an association of Boards of Trade of Saskatchewan, included in their itinerary, as in 1932, a visit to the park in June, 1933. While in the park, members of the party enjoyed excellent fishing at Crean lake. The annual regatta and tennis tournament was held on August 17, 1933, at Waskesiu. All items on the sports program were keenly contested and competitors from all parts of the

province participated. The annual tennis tournament, which is becoming one of Saskatchewan's outstanding sport events, was very successful, 85 entries being received for the various matches.

Park Development.—A combined entrance building and registration office, with quarters for a gatekeeper, was constructed during the year at Meridian near the junction of Prince Albert highway with the projected Rabbit-Meridian or Foxdale road. This artistically designed log building stands on the main highway within the park boundary and presents a very pleasing appearance.

A building designed for community and museum purposes was erected in the centre of the campgrounds. The construction of two bathhouses at Waskesiu lake is proceeding and the buildings will be ready for use during the ensuing season. Excellent progress was made with the construction of an 18-hole golf course, nine holes of which were completed and made ready for seeding in the spring of 1934. The work of beautifying areas around all Government buildings was proceeded with during the season.

Campgrounds.—Facilities for camping at Big beach have been greatly improved in recent years and during the year under review the entire site was resurfaced with gravel, effecting a much appreciated improvement. The site has 500 prepared lots and accommodation for 2,000 campers. A new recreation field was levelled and surfaced at the rear of the campgrounds, which greatly improves facilities for sport.

Licences and Permits.—Transactions during the year under this head totalled 1,744, as follows: building permits, 6; business licences, 192; camping permits, 1,189; chauffeur licences, 20; hay permits, 26; timber permits, 31; miscellaneous, 280.

Roads.—All thoroughfares were kept in excellent condition throughout the year and the repairs were made without the necessity of closing any roads. The Prince Albert highway, main thoroughfare from Prince Albert to Waskesiu, the Narrows road, and the Rabbit-Meridian road were improved and curves reduced.

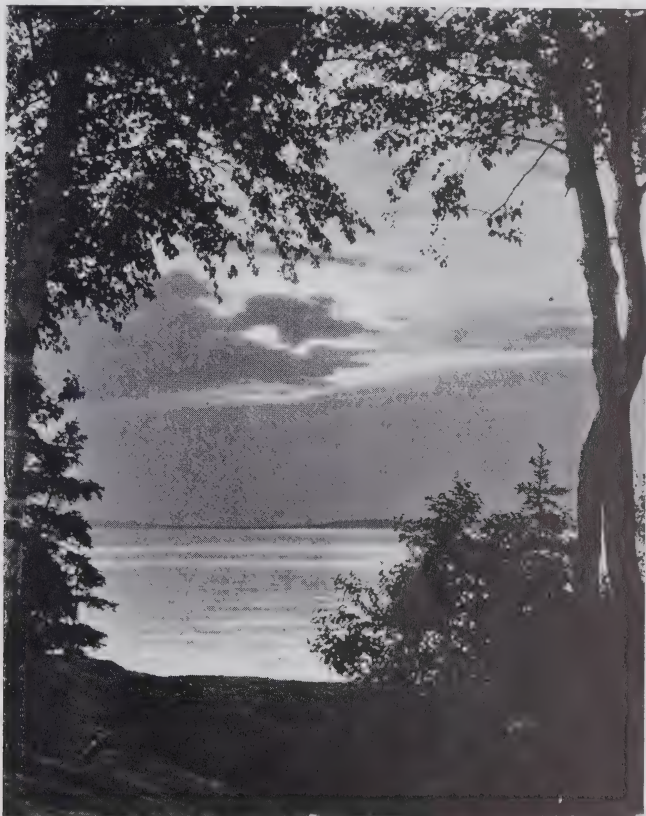
Fish Culture.—Biological study of the waters of Waskesiu lake was continued during the year and much additional valuable data was obtained. Grey trout fishing in Kingsmere lake and also in Crean lake was very satisfactory, and the number and size of the fish caught during the season of 1933 showed marked improvement over previous years.

Fire Control.—A total of six fires was reported during 1933. The warden staff was successful in suppressing five of these fires without serious damage. The Bagwa Lake fire was located in very difficult country and about fifty acres were burned over before it was brought under control. Aeroplane patrols were carried out by the Royal Canadian Air Force during periods of serious fire-hazard, under arrangement with the Parks Service. As an auxiliary to the warden service, regular aerial patrol is very valuable for fire detection purposes.

Game.—Although there is reported to be a marked increase in the number of predatory animals, notably coyote and wolf, throughout northern Saskatchewan, big game losses in the park are not serious and no decrease was discernible in moose, deer, elk, or caribou. Fur-bearers give every indication of being on the increase, particularly beaver. Bird life, especially waterfowl, was plentiful.

Recreation.—The history of Prince Albert National Park since its formal dedication in August, 1928, has been one of sound progress, and every effort has been made to develop the natural attractions with which the park abounds, as is manifest by the results obtained in the short space of seven years. The

park comprises for the most part a forested area, the terrain being of rocky formation and well-watered. Within the park a number of fine bodies of water are to be found, of which the following are the more important, namely: Waskesiu, Kingsmere, Lavallee, Wassegam, Tibiska, Crean, and Bittern lakes. There are also hundreds of smaller lakes.



Evening at Lake Waskesiu—Prince Albert National Park.

A circuit of the park by canoe offers interesting possibilities for the adventurous, and fine fishing may be enjoyed in practically all lakes. Waskesiu lake being noted for its great northern pike, while Kingsmere and Crean lakes are famed for their grey trout. To facilitate overland transit, a light railway has been constructed across Heart Lake portage. Kingsmere river also has been cleared out both above and below the rapids, around which latter a light railway has been constructed. At Waskesiu Lake beach the construction of a 375-foot breakwater and a shore wharf provide for pleasure craft ample protection from wave action.

Other facilities for sport include three tennis courts already in use (with two more under construction); children's playground equipped with swings, teeters, etc.; golf course, nine holes of which are nearly ready for play and another nine holes under construction; recreation ground for baseball, football, and softball; three quoit pitches, and other features. Two new bathhouses have been added to the facilities at the beach.

RIDING MOUNTAIN NATIONAL PARK

The formal opening of Manitoba's National Park took place with appropriate ceremonies on Wednesday, July 26, 1933, at Wasagaming townsite, headquarters of the park. The program for the proceedings on this occasion was arranged under the personal supervision of Hon. Thomas G. Murphy, Minister of the Interior, upon whose invitation His Honour the Lieutenant-Governor of Manitoba, presided over the dedicatory ceremonies and also officiated in the unveiling of a tablet, incorporated in a cairn of native stone, carrying the following inscription:—

RIDING
MOUNTAIN NATIONAL
PARK

* *

THIS TABLET COMMEMORATES
THE OFFICIAL OPENING OF
RIDING MOUNTAIN NATIONAL PARK
AN AREA DEDICATED TO THE
PEOPLE OF CANADA FOR
THEIR BENEFIT, EDUCATION
AND ENJOYMENT

Opened by
Honourable James D. McGregor,
Lieutenant-Governor of Manitoba,
July, Twenty-sixth, 1933.

* *

Department of the Interior
Honourable Thomas G. Murphy
Minister.

The cairn stands in "Central Park" an area newly developed near Clear lake in the townsite of Wasagaming and the various events associated with the dedication took place in the immediate vicinity thereof. In addition to those already mentioned other prominent speakers included Hon. John Bracken, Premier of Manitoba; Hon. J. T. M. Anderson, Premier of Saskatchewan; Mr. J. L. Bowman, M.P. (Chairman); Col. H. A. Mullins, M.P.; and Mr. W. C. Wroth, President of the Union of Manitoba Municipalities. Other distinguished persons attending were—Hon. W. R. Clubb, Minister of Public Works, of Manitoba; Hon. W. J. Major, Attorney-General of Manitoba; Hon. J. S. McDiarmid, Minister of Mines and Natural Resources, of Manitoba; Mr. W. H. Burns, M.P.; Mr. Erriek Willis, M.P.; Mayor S. E. Snively of Duluth and Mayor R. H. Webb, of Winnipeg. Prior to the ceremony the Minister of the Interior tendered a luncheon to the official guests, followed by a reception in the new museum building.

At the luncheon, grace was said by Mr. J. H. Stitt, M.P., who used the following metrical form composed by himself for the occasion:—

Father of all this land of thine,
Of flowering field and fragrant flood,
Help us to know Thy grace divine
And all things beautiful and good.
We pray, O Lord, with all to be
At peace and harmony in Thee,
By hill and plain, through vale and wood,
One vast and glorious brotherhood. Amen.

A broadcast of the dedicatory ceremonies was made possible through the courtesy of the Manitoba Telephone System, in collaboration with the Canadian Radio Broadcasting Commission. Other items on the program included selections by the Princess Patricia's Canadian Light Infantry Band and singing by a choir from Dauphin.

The attendance at the grounds numbered approximately 10,000, and while the majority of visitors were from points in Manitoba, there was a large representation from Saskatchewan and other provinces, and also from the United States.

Reference was made in the annual report for the fiscal year 1932-33 to the fact that the people of Manitoba had developed "park-mindedness" since the establishment of Riding Mountain Park. If further proof of this were needed the answer is to be found in the returns of tourist travel at the park. According to 1933-34 figures 24,303 motor vehicles entered the park carrying 91,652 passengers, compared with 14,279 vehicles and 53,103 passengers in 1932-33, an increase of 10,024 vehicles and 38,549 passengers or nearly 73 per cent. Many distinguished persons from Winnipeg and other urban points visited the park during the season, some arranging accommodation in cottages for periods ranging from one week to a month. Hon. J. D. McGregor, Lieutenant-Governor of Manitoba, made several trips to the park with his guests. A number of societies and associations met at Wasagaming during the season, including the Pharmaceutical Association of Manitoba and the Dental Association of Manitoba. There was a meeting also of western branch managers of the Royal Bank of Canada in the park. Analysis of tourist figures discloses that while the majority of visitors came from Manitoba and adjacent provinces, there was a 100 per cent increase in tourists from the United States compared with the preceding year.

Information Bureau.—A total of 7,815 inquiries was dealt with during the tourist season through the information bureau, which has rendered an important service to visitors to the park.

Park Addition.—The Dominion, by expropriation, acquired title in March, 1934, to portions of section 19, township 19, range 18, and section 34, township 19, range 19, both west of the Principal meridian, comprising an area of 327 acres. This tract of land is required for park purposes and is valuable on account of its proximity to Wasagaming near the south boundary of the park.

Licences and Permits.—There were issued during the year the following: business licences, 98; building permits, 44; camping permits, 2,399; hay permits, 244; grazing permits, 33; timber permits, 1,827; miscellaneous permits and other transactions, 505; total, 5,150.

Campgrounds.—The season of 1933 was one of marked activity, camping permits issued numbering more than double those of the preceding year. In spite of an extension of the grounds, facilities were taxed to the limit and provision for accommodation of campers had to be made elsewhere. In anticipation of a still greater increase in attendance, work was commenced to extend the campgrounds to double the area. Additional kitchen-shelters have been erected and there has been constructed another ice-house for storage of perishable food. These cold-storage facilities are appreciated greatly by campers. All matters affecting sanitation were given close attention and drainage facilities improved and extended. During the dedicatory ceremonies registrations at the campgrounds reached a total of approximately 4,000 persons but this number was exceeded during the week-end of August 5-7, when the population accommodated under canvas was greater than 5,000. A total of 12,154 individuals stayed at the campgrounds during the season, the length of time varying from a week-end to two months or more, many arriving in May and remaining well into September.

Townsite Development.—Extensive improvements were made in the commercial section, business licences issued numbering 98, compared with 57 during the preceding fiscal year. The original hotel and store was moved from the lake

shore to one of the lots on Wasagaming Drive, principal thoroughfare of the town. This building was remodelled and now presents a greatly improved appearance and is capable of furnishing guests with much better accommodation. A large summer hotel, known as The Chalet, was constructed on the lake shore, with all modern conveniences; it has sixty-seven bedrooms, spacious rotunda, dining room, and halls. A new tea room was built and opened for business. All other business establishments improved their properties, including the bungalow camp operator, who added a number of units to his concession.



Museum and Community Building—Riding Mountain National Park.

Street widening and improvement was continued during the season. The Central Park area was improved and beautified by the planting of a large number of trees and by the laying out of flower-beds. Walks were extended and gravelled throughout the townsite. The lake front promenade was completed during the year. This promenade, which is over a mile and a half long, reaches from the business district to the residential area and cross-sectional walks have been constructed at convenient intervals.

There was considerable building activity in the residential section, as indicated by the issue of 43 building permits, involving the construction of many new cottages, and the improvement of some of the existing properties. Residents take a keen interest in the appearance of their cottages and in the beautification of their grounds.

Government Buildings.—The season's building program included the erection of the Museum, a building designed to house specimens of flora and fauna of Manitoba, also ethnological, geological, and palæontological exhibits. Provision was made for the use of one of the larger rooms as a community hall and another as a lecture hall for the holding of religious services and other meetings. Two services were held each Sunday during the tourist season for park visitors, while during the week the hall was used regularly for the free showing of motion pictures to capacity audiences.

At the campgrounds a large shelter, equipped with a fireplace and benches, was constructed for the convenience of campers during periods of inclement weather and as a place for community exercises in the evenings. One unit of a bathhouse was constructed on Wasagaming beach, equipped with individual lockers. The portal at the south entrance to the park was completed during the year. This structure is in the form of an arch and is built of logs and masonry in attractive design. It provides accommodation for the gatekeeper.

Roads.—All motor roads within the park were maintained in first-class condition. Construction of the Dauphin-Clear Lake highway was pressed forward. About six miles of grading was completed on the section southward from the north boundary of the park, and one mile and a half of the section north from Clear lake. The Norgate-Clear Lake road, which connects Wasagaming with Provincial Highway No. 5, was repaired and improved. The extension of Wasagaming Drive to the golf course was proceeded with for a distance of two and a half miles. Traffic entering the park from the north or east reaches Wasagaming over this road.

Park Telephone System.—Telephone construction consisted of 25 miles of pole line from administration headquarters to the gatekeeper's cabin at the Norgate entrance, and relocation of $4\frac{1}{2}$ miles of pole line westward from the golf course to the south end of the new Dauphin-Clear Lake road.

Fire Control.—During the season of 1933 the fire situation was never out of control, although conditions during the latter part of April and most of May were such that the utmost watchfulness was necessary to detect and suppress fires. Fires occurred frequently in early spring but prompt action of the warden staff on every occasion was instrumental in effectually checking the outbreak without serious damage to timber. Valuable service also was rendered by the Royal Canadian Air Force, which by arrangement with the Parks Service operated an aeroplane during periods of serious fire hazard. Not only is aerial observation of the utmost value in the detection of incipient fires but the presence of these observers in the sky has a psychological effect upon travellers and campers in the park and upon persons in the adjoining districts, prompting them to be careful with fire.

Wild Life.—Observation of wild life in the park points to a steady increase in numbers of all species indigenous to the territory. Notwithstanding the severity of the past winter, coupled with an extremely heavy snowfall, big game such as Virginia deer and elk came through the winter well. Due to the vigilance of the wardens, infractions of the game regulations have shown a marked decrease compared with the earlier years of the park's history. The situation with regard to predatory animals is not serious; coyote, however, appear to be increasing. Moose were observed in larger numbers than in former years. A herd of eight or nine of this species wintered in the vicinity of Clear lake. Mule deer also were numerous. There was a marked increase in the number of waterfowl frequenting park waters, particularly on lake Audy, which attracts in season many varieties and great numbers of migratory bird life, notably Canada goose, white swan, and wild duck. Other feathered life was abundant. Purple martin were more numerous than ever, and all birdhouses erected in town and on the golf course were occupied during the nesting season. Mountain bluebird were perhaps less numerous than in the previous year but all other known species were common. The appearance of grosbeak in the park was observed for the first time, although apparently the species is not uncommon in districts nearby.

Animal Enclosure.—The herd of buffalo, started as an experiment, has done remarkably well and numbered 32 head at the close of the fiscal year 1933-34. This is an increase of 12, or 60 per cent, since November, 1931, when the original

herd was transferred from Buffalo National Park. The elk herd has grown to 33 head, an increase of 8 during the year. Other animals in the enclosure are: moose, 2; Virginia (white tail) deer, 2. Owing to the necessity of providing additional pasture to meet the requirements of an increasing number of animals, the enclosure of 320 acres was enlarged to a total area of 765 acres. Captive wild life includes 3 black bear, domiciled in an appropriately located pit at Wasagaming for show purposes, two of the number being the gift of the Parks Board of the city of Winnipeg and a third secured locally. There are also 2 raccoon and 3 porcupine donated by persons interested in the park and its work on behalf of wild life.



Buffalo in Lake Audy Enclosure—Riding Mountain National Park.

Fish Culture.—Further intensive study was made of the waters of Clear lake to determine what action should be taken to enhance the value of the lake for angling. This survey has shown that there is an abundance of fish food and that conditions are suitable for either maskinonge or Kamloops trout. In the meantime northern pike, native game fish, continue to provide excellent sport and exceptionally good catches were reported during the season.

Recreation.—Facilities for recreation and sport at Riding Mountain Park are manifold, and include swimming, boating, riding, hiking, tennis, and golf. During the year six additional tennis courts were completed and put into use. A tennis tournament, organized by park visitors, resulted in some excellent contests, there being 191 entries for the events. At the golf course local organizations held a number of tournaments. The nine-hole course was in excellent condition and a total of 6,344 people played on it during the season. An additional nine holes are under construction and it is expected that the full course of eighteen holes will be in operation during the season of 1934. There is a comfortable clubhouse and the grounds have been improved and beautified. Parking facilities also have been improved. Devotees of the sport of riding and hiking appear to be increasing and several trail rides were organized by visitors. Bathing and boating was more popular than ever and the new bathhouse and beach improvements were greatly appreciated by frequenters of the resort.

BUFFALO NATIONAL PARK

The number of animals in Buffalo National Park at the close of the fiscal year under review was as follows: buffalo, 5,014; mule deer, 2,300; elk, 1,162; moose, 105; yak, 39; hybrid, 32; domestic cattle ("cattalo" experiment) 14, a total of 8,666 head.

During the year 1933, after careful consideration of the available pasturage and feed conditions as well as the large number of animals for which provision had to be made, it was decided as a matter of policy to relieve congestion by the slaughter of 2,000 buffalo. This was carried out in the autumn and early winter when the animals were in good flesh and the fur prime. Arrangements were made whereby the Government took over for use in the various relief camps throughout the Dominion all meat suitable for the fresh meat trade resulting from the slaughter. As a food product this meat has proved most satisfactory and in flavour fully up to the standard of first quality beef.

Health of Animals.—The investigation conducted during 1932 by a representative of the Health of Animals Branch of the federal Department of Agriculture to determine methods for the eradication of liver-fluke (*Fascioloides magna*) a parasite found to be inhabiting foreshore waters of certain lakes in the park, and to have infected some of the buffalo, was continued in 1933 and measures adopted to destroy certain species of snail, which is an intermediate host of the parasite.

Donations of Wild Life.—The following donations were made during the year; 1 pair of buffalo to Taronge Zoological Park, Sydney, Australia; 26 elk to Kamloops, B.C.; and three shipments, consisting in all of 122 elk, to points in Ontario. The latter shipments were for the purpose of re-establishing the species in the areas to which they were distributed.

In addition to the donations of live animals two mounted specimens, a bull buffalo and a buck elk, were forwarded to the Royal Ontario Museum, Toronto, Ontario.

Agriculture.—There was ample precipitation early in the season but before the grain ripened a period of drought, with hot winds, was experienced which affected the yield seriously. Operations were confined to oats, approximately 420 acres being seeded. Of the harvest, 70 acres were reserved for green feed, and 8,389 bushels were threshed from the remainder. Four carloads comprising 8,330 bushels, were shipped from surplus stocks to other National Parks. Approximately 255 tons of straw, which made excellent winter feed for the animals, resulted from the threshing operations. A considerable acreage of the farm lands formerly under cultivation was seeded down to brome grass, Western rye grass and clover, and 160 tons of hay were cut on these plots; in addition, approximately 1,309 tons of native (slough) hay were cut on the Ribstone Creek meadow and other areas in the vicinity of the Home Paddock.

Fences and Telephone Lines.—A new enclosure was fenced, containing one section of land adjoining the corrals at winter quarters, to provide a holding pen for cows and calves during the operation of segregating beef stock. Repair work was pursued throughout the season in connection with maintenance of approximately 100 miles of high fencing, and of all telephone lines in the park.

Fireguarding.—Approximately 140 miles of a twenty-foot fireguard (running parallel to and on opposite sides of the main fence, also cross-sectionally at regular intervals) were ploughed. Brush that had grown up in places along the fence line was cut and burned, and fire-fighting equipment overhauled and repaired in readiness for emergencies. There was only one small fire and the outbreak which occurred in the Mott Lake enclosure was brought under control without serious damage.

Permits.—Permits were issued to settlers in the vicinity of the park for a total of 625 cords of dry wood and for 7,000 green willow pickets.

Visitors.—Visitors to Buffalo National Park during the year numbered 12,631 compared with 12,527 for the corresponding period in the previous year, an increase of 104.



Herd of Wapiti (Elk)—Buffalo National Park.

ELK ISLAND NATIONAL PARK

At the close of the fiscal year 1933-34 a careful estimate of the animals in the park gave the following numbers: buffalo, 1,740; moose, 366; elk, 484; mule deer, 219, a total of 2,809. All species are in a healthy condition and have come through a winter of unusual severity without serious losses. Coyotes were plentiful but reports do not indicate that they molested other animals.

Tourists.—The improved standard of all roads during recent years has been an undoubted factor in stimulating travel, and the fiscal year 1933-34 constitutes a record for the park with 47,487 visitors, compared with 39,165 for the corresponding period last year, an increase of 8,322 or more than 21 per cent. Astotin lake, close-by which are located the headquarters of the park, is a delightful body of water, roughly two and a half miles long by one and a half miles wide, containing a number of islands where many species of feathered life find sanctuary during migration. The lake is a favourite resort of visitors to the park and there are facilities for recreation, including swimming, canoeing, boating and other aquatic sports.

Administration.—The following are some of the more important items of work carried out during the year: completion of approximately one mile of new road (continuation of the work done previously on the road to the south boundary of the park); gravelling four miles of the South Gate road; maintenance of all roads, including reduction of curves; repairing fence about animal enclosure and the making of fire-guards.

Agriculture.—Hay was the principal crop garnered, the field yielding 750 tons of good quality fodder, compared with 400 tons in 1931-32.

Wild Life.—Feathered life was plentiful. Blue heron returned to their favourite nesting quarters on Crane island and their numbers show no sign of diminution. Partridge and prairie chicken were quite numerous, also water-fowl, in season, duck staying on Astotin lake until late in the autumn.

NEMISKAM NATIONAL PARK

This fenced animal reserve was created in 1915 for the preservation of pronghorn antelope, a species of game animal indigenous to the western plains of North America, and threatened with extinction in consequence of the progress of settlement. The present herd of antelope, numbers 325 head.

Conditions during the year under review were decidedly favourable locally for the antelope. There was an abundance of moisture and excellent grazing in consequence.

WAWASKESY NATIONAL PARK

This is an unfenced area situated about twenty-five miles north of Medicine Hat. It is a natural range for the antelope and a wild herd of considerable numbers occupy it. As it is not fenced it is not possible to make a census of the animals but reports from the officer in charge indicate conditions are satisfactory.

GEORGIAN BAY ISLANDS NATIONAL PARK

This park consists of thirty islands which are located at different points between Tobermory at the head of Bruce peninsula and the extreme eastern end of the bay. The setting aside in 1929 of these islands as a National Park met with instant success from a tourist standpoint. During the year under review a substantial increase in the number of visitors over last year was reported, with a total of 4,700 at Beausoleil island and approximately 2,000 at Flowerpot island. The record since the establishment of the park is a most gratifying one. During the fiscal year 1930-31 Beausoleil island, the largest recreational area of the park, drew 1,000 visitors and in the following year 2,800 came to Beausoleil and 960 to Flowerpot island. The fiscal year 1932-33 experienced a further increase in the number of visitors, Beausoleil island with 3,182 and Flowerpot island, 1,500, a total of 4,682.

Many improvements were carried out during the year at Beausoleil island, including construction of six pleasure boat docks; entrance arch on the main dock where visitors register; ditching; and cleaning out brush from camping grounds. At Flowerpot island some of the more important improvements included: reinforcing base of the two "flowerpots," widening of trails, deepening channel, cribbing section along southwest front of island, and clearing campgrounds.

Beausoleil island and the lesser island members of the Park group are under the supervision of a warden, while a caretaker is charged with similar responsibilities at Flowerpot island.

POINT PELEE NATIONAL PARK

The year at Point Pelee Park was one of considerable activity, although the total number of visitors showed a slight decline compared with the previous year. There was an increase, however, in the number of tourists from Canadian points. The total number of visitors was 149,380. Of these 73,640 were Canadians and 75,740 from the United States. For the corresponding period last year, the total was 162,785—55,785 Canadians, and 107,000 citizens of the United States.

Camping permits to the number of 701 were issued during the season (1933) against 736 for the corresponding period in 1932. In both years the majority of camping parties came from Michigan and Ontario. Camping permits were issued for periods ranging from one day to one month, 434, or 62 per cent of the total, being for one month each.



Main Automobile Road—Point Pelee National Park.

Owing to limited funds, road work was restricted to maintenance and repairs, including the resurfacing of a four-mile section. During the season all buildings were kept in repair and roads were treated with oil to keep down the dust.

The willow-planting experiment of 1930, designed to arrest erosion of the beaches by wave action, has given satisfactory results, the trees having taken good root and made remarkably rapid growth.

As a bird sanctuary the park fulfils an important function. Lying in the path of migration of waterfowl and other feathered wild life to their breeding grounds in the North, the extensive shore waters and marsh areas of Point Pelee Park form an ideal resting place and feeding ground for wing-weary migrants and have always been noted for the great number and variety of waterfowl that frequent them. Duck, Canada goose, and whistling swan resorted to local waters in considerable numbers, while pheasant and quail were quite numerous. Muskrat were plentiful but not to the same extent as in the preceding year. Other small fur-bearers, notably raccoon and squirrel, gave many indications of being on the increase.

Contingents of Boy Scouts, Girl Guides and Sea Scouts again took advantage of the facilities of the park, an increasing number of these young people camping in the park for several weeks during the summer (1933).

ST. LAWRENCE ISLANDS NATIONAL PARK

St Lawrence Islands National Park comprises a number of widely scattered units located in the St. Lawrence river between Kingston and Morrisburg. Obviously in a park consisting of different islands distributed along the river for approximately eighty miles it is impossible to register all visitors, but from careful calculations it is estimated that upwards of 15,000 people visited this park last season.

Improvements have been made for the comfort of visitors in the way of pavilions, shelters, wharves, and other conveniences. Each island, or group of islands, is in charge of a caretaker who sees that the regulations for the preservation of the park are carried out and also issues camping permits. In the past season the equipment was kept throughout in an efficient state. The wharf at Beau Rivage was rebuilt and the pavilion at Mallorytown was remodelled, the building being greatly improved in appearance and rendered more serviceable as a recreational centre.



Aubrey Island—St. Lawrence Islands National Park.

In the part of the St. Lawrence above referred to there are approximately 1,700 islands which vary in size from less than an acre up to several square miles. Most of them are wooded and picturesque and they comprise an area of very great beauty. Beginning with some reservations in 1904 the St. Lawrence Islands National Park now embraces thirteen islands or parts of islands and one mainland area. The remaining islands are practically all privately owned. The park, therefore, conserves to the public a part of this beautiful archipelago which has been a Mecca for visitors from all points of the compass for more than half a century. The areas on the different islands are widely used as picnic

places by citizens of nearby communities and as summer camping grounds by such groups as the Boy Scouts, Girl Guides, and various organizations both from the vicinity and from a distance. In addition there are many visitors from the United States.

FORT ANNE NATIONAL PARK

Interest in this historic site was well maintained during the year, visitors to the fort museum numbering 7,590. No count was attempted of the large number of people visiting the grounds only.

Acadian history is a subject of unfailing interest for the Canadian student, and full advantage was taken of the facilities offered at Fort Anne by those in search of information. Parties of school children, with their teachers, visited the fort to increase their interest in national history and to examine the many relics and other interesting exhibits.

The School Fair at Lower Granville on September 21, 1933, was attended by the Honorary Superintendent of the Park and the Assistant Curator of the Museum. The work of the park was explained and a brief outline was given of the attempt at colonization from Scotland and a description of the Scottish fort which once stood at Lower Granville. Much work of this character was performed by these officials during the year.

Many distinguished persons paid a visit to Fort Anne during the year, notably: Their Excellencies the Governor General and the Countess of Bessborough; His Grace, the Most Reverend C. L. Worrell, Archbishop of Nova Scotia and Primate of all Canada, and Mrs. Worrell; the Hon. Cairine Wilson; and Dr. J. Clarence Webster of Shediac, N.B., a member of the Historic Sites and Monuments Board. The park was visited also by members of the School Empire Tour, an association represented on this occasion by ten boys from the leading public schools of England and by the directors of the tour.

A number of gifts were made to the museum, the following being of special interest: silver medal struck to commemorate the Treaty of Utrecht, 1713, by which Annapolis Royal passed to the British; copy of De Meulles' plan of Port Royal, 1686; tablet commemorating the organization of the 40th Regiment at Annapolis Royal, 1717; reproduction of the coat of arms of His Excellency the Governor General, a souvenir of his visit on July 5. His Excellency was the fourth Governor General to visit Fort Anne and to make such a donation. Several books and journals, also a number of maps and plans of the fort were received by the Superintendent and deposited in the museum.

The bronze tablet donated the previous year by the Historical Association of Annapolis Royal to commemorate Daniel Auger de Subercase, the last French governor of Acadia and Commander of Port Royal, was duly affixed to the front wall of the building which had served as the officers' quarters, and unveiled on August 7, 1933, by Dr. J. Clarence Webster in his capacity as Honorary President of the Historical Association of Annapolis Royal. On October 12 the tablet commemorating the organization of the 40th Regiment at Annapolis Royal was unveiled in the "Garrison Room" of the museum by Hon. Colonel F. W. Harris of the Annapolis Regiment, a life director of the Historical Association of Annapolis Royal. The tablet was formally presented to Fort Anne National Park by Brigadier-General C. F. Constantine, D.S.O., District Officer Commanding, Military District No. 6, Halifax, N.S.

FORT BEAUSÉJOUR NATIONAL PARK

The site of the old military fortifications at Beauséjour was set apart as a National Park in 1926, when the National Parks Service became responsible for the preservation and maintenance of the fort. A great deal of valuable work has been accomplished to date, including repairs to the stone walls of the powder magazine and at the entrance to the fort. More recently the remains of the

casemate inside the entrance were excavated and progress made in levelling the ground within the fortifications. The site has been suitably fenced and is readily accessible, being located near the Sackville-Amherst highway. Direction markers have been erected in the grounds, indicating paths to objects of special interest.

Great interest has been shown in this historic site which passed into the hands of the British in 1755. Visitors during the year numbered 5,614 compared with 5,728 for the fiscal year 1932-33.

The War Office, London, donated to Canada during the year under review an old 8-inch mortar of iron; length, two feet; weight, 700 pounds; a relic associated with the early British occupation of Fort Beauséjour. This piece of ordnance will be placed on the ramparts as soon as an appropriate mounting is constructed to carry it.

Unemployment Relief

During the fiscal year 1933-34 the policy was continued, under the Relief Act, 1933, of providing work in the National Parks of Canada as a measure of unemployment relief. Including special road projects, namely, construction of the Big Bend and Golden-Donald sections of the Golden-Revelstoke highway, relief was provided for a total of 8,670 individuals, comprising 7,673 single, homeless men, and 310 married men (permanent park residents), with dependents numbering 687.

The following schedule indicates the character of the projects undertaken in this connection:—

Banff National Park

(Summer Operations: April 1 to October 31, 1933)

Single, Homeless Men

Healy Creek and Spray Valley: trail improvement.

Hillsdale (M. 15): road revision and improvement.

Banff-Jasper Highway (Banff Section): general road construction, including clearing, grubbing, ditching, grading and surfacing; also construction of Mosquito Creek bridge and No-see-um Creek bridge.

Married Park Residents

Stoney Squaw Road: maintenance and improvement.

Park Administration Buildings, Electric Lighting and Power System, Water and Sewer Systems, Banff Streets and Park Roads, Campgrounds: general maintenance and repairs.

(Winter Operations: November 1, 1933, to March 31, 1934)

Single, Homeless Men

Spray Valley: trail improvement

Hillsdale (M. 15): improvement.

Eldon Hills: revision.

Stoney Squaw Road: construction.

Banff-Jasper Highway (Banff Section): general road construction, including clearing and brushing. Progress made on this project since inception of work late in 1931 to March 31, 1934; clearing, 21.22 miles; stumping and grubbing, 17.81 miles; grading, 17.27 miles; gravelling, 15.52 miles; drainage ditching, 3.94 miles; tote road construction, 2.2 miles; culverts, 360.

Married Park Residents

Animal Paddocks, Administration Buildings, Stoney Squaw Road: maintenance and general improvement.

Banff Office, Engineering Service (Outside): building extension.

Jasper National Park

(Summer Operations: April 1 to October 31, 1933)

Single, Homeless Men

Patricia Lake Automobile Campsite, Pyramid Lake road: general improvement and construction.

Lake Annette: improving main road.

Maligne Canyon: clearing brush and improving trail.

Banff-Jasper Highway (Jasper Section): general road construction, including clearing, grubbing, creek diversion, ditching, grading and surfacing, also completing bridge over Portal creek.

Miette Hot Springs Road: general road maintenance and improvement.

Married Park Residents

Jasper Townsite and Cottonwood Creek Automobile Campsite: maintenance and general improvement.

(Winter Operations: November 1, 1933, to March 31, 1934)

Single, Homeless Men

Lake Annette (2 camps): camp construction and establishment.

Medicine Lake: camp construction and establishment.

Patricia Lake Automobile Campsite: general improvement of camp road and grounds.

Lake Annette: clearing and brushing.

Maligne Canyon Road: clearing and brushing.

Pyramid Lake and Pyramid Lake Road: improvement.

Maligne Canyon and Medicine Lake Road: location survey and general construction.

Banff-Jasper Highway (Jasper section): general road construction, including rock excavation, bridge and culvert construction. Progress made on this project since inception of work early in 1931 to March 31, 1934: clearing, 37.72 miles; stumping and grubbing, 35.20 miles; grading, 29.75 miles; gravelling, 21.82 miles; tote road construction, 7.96 miles.

Miette Hot Springs Road: general road maintenance, including construction of bridge abutments, also levelling campsite and parking grounds.

Jasper-Yellowhead Road: widening and building bridge embankment.

Jasper Highway: brushing, and bridge improvement.

Edith Cavell Road: clearing, grubbing and grading.

Married Park Residents

Jasper Townsite: constructing engineering office; maintenance of streets and sidewalks; excavating for and laying pipe-line and service connections of water system.

Waterton Lakes National Park

(Summer Operations: April 1 to October 31, 1933)

Single, Homeless Men

Belly River Road: camp construction and establishment; clearing road right of way.

(Winter Operations: November 1, 1933, to March 31, 1934)

Belly River Road: completing survey revision on Belly River Crossing to international boundary; road construction. Progress made on this project as at March 31, 1934: clearing, right of way, 18 miles; grading, 3.85 miles.

Cameron Lake Road: maintenance and general improvement; clearing campsite; clearing right of way.

Akamina Road: constructing bridge near Mile 3.

Elk Island National Park

(Summer Operations: April 1 to August 31, 1933)

Single, Homeless Men

Sandy Beach Development: completing construction of two new bathhouses.

South Gate Road: clearing right of way and general road construction.

Main Park Roads: maintenance and improvement, including culvert construction and widening ditches.

Recreation Area: clearing and brushing campsite and parking grounds and constructing tables, benches, etc.

(Winter Operations: November 1, 1933, to March 31, 1934)

Golf Course: clearing and brushing.

Resident Engineer's Quarters: constructing frame building and completing interior fittings.

Sandy Beach Development: constructing new bathhouse on concrete foundation; completing interior fittings with individual lockers.

Recreation Building: constructing foundation.

Exhibition Buffalo Corral: constructing fences and stringing wire.

Recreation Area: filling swamp; building trestles and foot-bridges, also tables and benches.

Roads: general maintenance and hauling gravel for stock piles.

Yoho National Park

(Summer Operations: May 1 to June 10, 1933)

Married Park Residents

Field Townsite Improvement: cleaning, grading and surfacing streets.

Emerald Lake and Yoho Valley roads: grading and surfacing.

(Winter Operations: December 1, 1933, to March 31, 1934)

Road Maintenance and Improvement: widening Emerald Lake road.

Field Townsite: shovelling snow.

Campgrounds Community Building: cutting and hauling construction logs.

Kootenay National Park

(Winter Operations: December 1, 1933, to March 31, 1934)

Single, Homeless Men

Banff-Windermere Highway: camp construction and establishment, road revision, widening and improvement.

Campgrounds: constructing caretaker's building.

Prince Albert National Park

(Summer Operations: April 1 to October 31, 1933)

Single, Homeless Men

Prince Albert Highway (Park Section, 35 miles): general maintenance and improvement, including clearing and brushing.

Narrows Road: general road construction, including clearing, grubbing, filling and grading, also bridge and culvert construction.

Rabbit-Meridian Road: general road construction, including rock excavation, filling, grading and surfacing, also bridge and culvert construction.

Big River Trail: brushing and widening, including bridging and corduroying.

Registration Building: construction.

Community Building: construction.

Bathhouses (2): construction.

Waskesiu Golf Course: constructing nine holes, including clearing, brushing and grading, also building greens and tees.

Waskesiu Campgrounds: extension and improvement, including clearing, draining and ditching, also grading streets and roads.

Waskesiu Boat Wharf: driving piles and completing fill, also constructing log steps and gravel paths.

New Telephone Line—Mackenzie to Waskesiu: surveying right of way and placing markers; hauling and distributing poles and digging holes; also erecting poles for a distance of 7.5 miles.

(Winter Operations: November 1, 1933, to March 31, 1934)

Golf Clubhouse; Museum Building; Staff Quarters and Garage (Waskesiu): cutting and delivering logs and other building material at sites.

Campgrounds: constructing two refrigeration buildings and two shelters.

Narrows Telephone Line: clearing right of way and burning brush; also hauling, peeling and erecting poles.

Tote Road Bridge (Spruce River): excavating, levelling and grading approaches; removing old piles and flume timbers.

Buffalo Paddock-Foxdale road: surveying site; clearing and brushing fence right of way; hauling and treating fence posts.

Rabbit-Meridian Road: general road construction. Progress made on this project since commencement of work during the winter of 1931 to March 31, 1934: rough slashing and burning, 13 miles; clearing and grubbing, 3.7 miles; grading, 3.6 miles.

Narrows Road: cutting, peeling and hauling bridge timbers. Progress on this project since commencement of work in the spring of 1930, to March 31, 1934, comprises clearing and underbrushing of the entire right of way of 11 miles, of which 5.2 miles have been graded.

Prince Albert Highway (Park Section, 35 miles): general maintenance and improvement.

Riding Mountain National Park

(Summer Operations: April 1 to October 31, 1933)

Single, Homeless Men

General Park Improvement: clearing and brushing 121 acres.

Golf Course: constructing second nine-hole course and building foundation for new water tank.

Lake Front Promenade: continuing construction of promenade along water front at Clear Lake; ditching.

Townsite Roads and Streets: construction, maintenance and improvement.

Tennis Courts: completing four new tennis courts near campgrounds and two tennis courts on government reserve.

Townsite Improvement: completing stucco and stone work of bathhouse, and interior fittings; also landscaping Central Park and other areas; erecting cairn commemorating dedication of Riding Mountain National Park; completing government cottage.

Telephone System: connecting telephone line from Dauphin Road to townsite; setting and tamping poles on Lake Audy line.

Museum: completing stucco and stone work, and plastering; installing sewage disposal plant and lighting plant; landscaping grounds.

Campgrounds: completing kitchen and recreation shelters and refrigeration building; improving drainage system.

Trails: clearing trails and corduroying marshy areas.

Buffalo Paddock: clearing fence right of way for 45-acre extension of buffalo paddock; digging post holes and setting fence posts; building corrals.

Parking Areas: levelling and surfacing parking grounds near golf club; and other improvements, including ditching and draining slough.

North Shore Road (relocation): clearing and grubbing.

Gatekeeper's Cabin at East Gate: erecting log superstructure and roofing.

Warden's Cabin at North Gate: excavating for foundation.

Clear Lake-Dauphin Road: general road construction, including grading, trimming and ditching; bridge and culvert construction, maintenance of completed section and repairing tote road to new camp. Progress made on the project since the winter of 1930-31 to March 31, 1934: clearing, 25 miles (length of road), grubbing, 9 miles and partial grubbing balance of 16 miles; grading, 6.1 miles; construction of two small bridges and numerous culverts.

Clear Lake-Norgate Road: general road improvement, including surfacing and ditching.

(Winter Operations: November 1, 1933 to March 31, 1934)

General Park Improvement: clearing and brushing 600 acres.

Golf Course: erecting water tank and platform, with stairs and railing, to observation tower surmounting same; re-brushing new nine-hole golf course; building garage; building and surfacing tees and greens.

Townsite Roads and Streets: constructing Lake Shore Drive; improving To-Wa-Pit Drive and widening Wasagaming Drive.

Townsite Improvement: clearing and brushing 45 acres in Wasagaming subdivision; general development and landscaping.

Wasagaming Campgrounds Extension: clearing and brushing nine acres; constructing nine kitchen shelters and one refrigeration building.

Museum: constructing seats and show-cases and commencing work of interior finishing.

Gatekeeper's Cabin at East Gate: shingling roof and finishing interior.

Warden's Cabin at North Gate: constructing log building with shingle roof; finishing interior.

Warden's cabin at East Gate: constructing log building with shingle roof; finishing interior.

Stables at North and East Gates: construction commenced in March, 1934.

Wasagaming Main Beach Pile Pier: preliminary construction on breakwater and pier; hauling materials and driving piles.

Bridle Path, North Shore: clearing and levelling.

Buffalo Paddock: cutting and assembling fence posts and other material.

North Shore Road: levelling and grading.

Clear Lake-Dauphin Road: clearing and grubbing right of way.

Townsite Reclamation: ditching for creek diversion, and filling willow flats.

New Bathhouse: constructing log and stone building with shingle roof.

Telephone Line Reconstruction: removing telephone wire between golf course and Thomson Cabin and clearing 20-foot right of way for new telephone line along Clear Lake-Dauphin Road from townsite.

Vermilion River Portage—Strathclair Road: excavating for abutments and building timber bridge.

Tennis Pavilion: clearing site for pavilion at tennis courts.

Golden-Revelstoke Highway

(Dominion Section, Golden-Boat Encampment)

Donald North (78 miles):

(Period of Operations—May 15 to December 15, 1933)

General road maintenance, completed section: grading and regrading; constructing tote road; building bridges and culverts; clearing rock slides.

Performance during period, in quantities: clearing, 4.2 acres; grubbing, 9 acres; excavating on grade and for bridges and culverts: solid rock, 14,155 cubic yards; loose rock, 20,641 cubic yards; earth, 22,188 cubic yards; riprap and rock fill (Sullivan bridge) 815 cubic yards; bridge construction; logs, 400 linear feet; lumber, 12,824 feet B.M.; iron, 7,500 pounds; steel, 155 pounds; culvert construction: logs, 3,056 linear feet; iron, 390 pounds; corduroy, 6,240 linear feet.

Progress made on this project since commencement of the Dominion Section in November, 1929, to March 31, 1934: clearing, 63 miles; grubbing, 62 miles; grading, 60 miles and surfacing, 50 miles.

Donald South (16 miles):

(Period of Operations—July 1 to December 23, 1933)

General road construction: clearing, grubbing, and grading and constructing culverts.

Performance during period, in quantities: clearing, 23 acres; grubbing, 13 acres; excavating on grade and for culverts: solid rock, 17 cubic yards; loose rock, 324 cubic yards; earth, 30,552 cubic yards; culvert construction: logs, 10,697 linear feet; iron, 1,113 pounds.

Progress on this project since work was taken over by the Dominion under agreement with the province of British Columbia (ratified by Order in Council, P.C. 891, of May 5, 1933): surveying right of way, 10 miles; grading, 3 miles; patch-surfacing, 3 miles; culverts, 16.



Astoria River Bridge, looking downstream, Edith Cavell Road—Jasper National Park.

Migratory Birds Convention Act

(Chapter 130, Revised Statutes of Canada, 1927, and amendments)

On August 16, 1916, a treaty was signed at Washington, D.C., between the United States of America and Canada, the provisions of which were ratified and given the force of law by Act of the Parliament of Canada during the session of 1917.

Object.—Protection of certain migratory birds in Canada and the United States.

Administration.—The Minister of the Interior is responsible to Parliament for fulfilment of Canada's obligations under the Treaty; the Commissioner of National Parks is responsible to the Minister for the administration of the statute, and the Supervisor of Wild Life Protection is technical adviser and chief executive assistant.

Under and by virtue of Order in Council, P.C. 2283, of October 14, 1932, responsibility for police work pursuant to enforcement of the provisions of the Migratory Birds Convention Act, and Regulations made thereunder, was separated and made distinct from the general powers and responsibilities vested in the Minister of the Interior, and transferred to the Royal Canadian Mounted Police; all other powers and responsibilities continuing to remain, as heretofore, with the Department of the Interior.

PROTECTION OF MIGRATORY BIRDS

The serious lack of moisture experienced for several years past throughout southern areas of the Prairie Provinces has reduced the supply of wild duck on the continent of North America to the lowest ebb in history. The spring of 1933 opened with a plentiful rainfall but the increased precipitation this seemed to foretell was not realized as towards midsummer the conditions of drought were such that areas of shallow water became completely dry, a circumstance that was responsible for killing off many thousands of duckling. In fact, the situation was similar in many areas to that in 1931, when drought destroyed important breeding grounds completely, particularly in the southern portion of the three Prairie Provinces, where a great percentage of wild duck of North America ordinarily gathers during the nesting season. Although precipitation in 1933 was second only to that of the preceding year (comparing the figures for the last six years only), there was a total precipitation of only 9·30 inches in 1933 prior to July 31. When it is considered that the part of the year preceding that date is the important period from the standpoint of wild duck propagation, the figures are significant of conditions. Precipitation for the six-year period referred to, as at July 31 of each year, was as follows: 1928, 13·21 inches; 1929, 8·00 inches; 1930, 10·04 inches; 1931, 7·55 inches; 1932, 12·12 inches; 1933, 9·30 inches. A water fowl reconnaissance in 1933 of Wood Buffalo Park, covering parts of northern Alberta and of the Northwest Territories, indicated that during the period of this survey wild duck were decidedly plentiful throughout that area.

Reports from British Columbia indicate that nesting conditions in that province were satisfactory during the 1933 season. In the Cariboo district, which is a good duck area, increased precipitation was experienced, compared with the previous year.

With regard to black duck, the breeding grounds of which species are located for the most part east of the Ontario-Manitoba boundary, a good hatch was reported and no drought; in fact, in many parts of this section of the country there was an over-abundance of water and although this to some extent interfered with the food supply, it served as a protection during the open season as the waterfowl were scattered over a larger feeding ground than usual.

Migration southward was affected by an unusually early freeze-up throughout Canada in October. In the western provinces the shallow bodies of water froze over in the early part of that month and duck were forced to leave or congregate on the larger lakes. Later in the month the smaller bodies of water re-opened and duck appeared again on them for a short time. By October 20, 1933, winter had set in permanently throughout that part of Canada.

The southward flight of Canada goose and brant in the Maritime Provinces was exceptionally light in the autumn of 1933, and the hunting of these species in that region was poor and unsatisfactory in consequence. In the opinion of competent observers in close touch with conditions the occurrence of Canada goose and brant in that section of the country was not more than 5 per cent of what it was under conditions as they existed three or four years previously, a circumstance held to be due chiefly to failure of eel-grass, although aggravated by other unsatisfactory conditions.

INSECTIVOROUS BIRDS

The Migratory Birds Convention Act provides for the protection of insectivorous and non-game bird species as much as for waterfowl and other game birds. Insectivorous birds are in no grave danger from the hunter and not having been under special attack, the importance of this group conceivably may have been unwittingly overlooked. One of the objects of the Act is to

extend protection to the song-birds of North America. For every person who experiences the joy of the hunt, it may be confidently asserted that ten will find a greater pleasure in the presence of the songster, and for the people of Canada as a whole the cyclorama of bird-life with its beauty of plumage and song transcends other considerations, and the æsthetic charm of this world of feathered creatures makes for happiness. Practically all of Canada's valued wild bird population is protected by provincial as well as Dominion laws and there is abundant evidence pointing to a preponderance of sentiment endorsing such legislation.

Administration.—The three Chief Federal Migratory Bird Officers were actively engaged throughout the fiscal year. In addition to inspecting bird sanctuaries and keeping thoroughly informed of the condition and numbers of feathered wild life in their respective districts, they also advanced the cause of bird conservation by co-operating with organizations assisting in this work. This included the delivery on suitable occasions of lectures and radio addresses and the collection and preparation of material to be used in official publications dealing with Canadian birds. These officers also made investigations of conditions relating to eel-grass an important seacoast food of brant and Canada goose. A total of 742 honorary game officers under the Migratory Birds Convention Act co-operated with the Department and furnished information on wild life conservation in their respective areas throughout Canada. The responsibility for the police work under the Act was discharged by the Royal Canadian Mounted Police, which force operated in conjunction with this Department.

The bird sanctuaries established this year were located as follows: on the properties of the Quebec Golf Club and the Levis Golf Club; at Montmorency Village, P.Q. (the Kent Sanctuary); and on Catons island in the St. John river, New Brunswick.

Licences and Permits.—There were issued during the year under review, for purposes not inconsistent with the provisions of the Act, the following licences and permits: collection of birds for scientific purposes, 242; destruction of certain birds when proven to be injurious to agricultural, fishery or other interests, 134; possession of birds for purposes of propagation, 664; capture of birds for purposes of propagation, 8; collection of eiderdown, 21; collection of eggs of great black-backed gull within a bird sanctuary, 1; permission for working parties of the Hydrographic Survey to land and carry on necessary operations within a bird sanctuary, 1; carrying firearms within bird sanctuaries, 2; practice of taxidermy, 61; bird banding, 157.

Bird Banding.—There was a continuation during the year of the policy of bird banding as a means of studying the migration, range, nesting and wintering grounds, concentration points, longevity, mating and other problems peculiar to the general biology and life histories of duck and other game birds occurring throughout Canada. This investigation, scientific and international in scope, is being conducted almost entirely by volunteer workers interested in bird life, with the assistance and fullest co-operation of the Department of the Interior of Canada and the United States Bureau of Biological Survey. In Canada, banders operate under Dominion permit, and during the year 157 persons were so authorized. The official band is of metal and each one bears a different number. A record of birds captured, banded and released is forwarded periodically by the permittee with particulars of each case to the Wild Life Division of the National Parks Service, Department of the Interior, Ottawa, which acts as custodian of all such records. Incomplete returns for the fiscal year 1933-34 indicate that 20,475 birds were banded and, during the same period, more than 1,066 banded birds were recovered and reported. These returns have been added to the official bird-banding records for Canada. The records afford the

investigator an exceptional opportunity of tracing the movements of a large proportion of the number of birds banded, and ascertaining data of scientific interests bearing on the many and varied problems of bird life. Wild birds are of great economic importance to mankind because of the many useful purposes served by them and much of the exact information being obtained by the banding method is indispensable to the ornithologist and the conservationist in the proper administration of bird protection laws, and in such matters as the locating of bird sanctuaries. The European starling is spreading rapidly in eastern North America, and interesting and valuable data concerning the increase of this species is being gathered through the agency of banding methods.

Public interest in this important work is increasing and, due to markedly increased activity among bird-banding co-operators, this field of scientific investigation has expanded greatly during the past few years.



White-tailed Ptarmigan—Banff National Park.

Publicity.—Distribution of pamphlets through the Wild Life Division amounted to 30,177 copies, and dissemination of information concerning the shooting seasons and other related bird protection matters involved the distribution of the following: Migratory Bird Convention Act (unabridged), 6,341; abridgements, 11,658; posters, 38,670.

Through the medium of lectures much valuable information was circulated among school children, and in many educational institutions, and by radio broadcast to a still wider audience concerning the great value of wild life in the community, and the means that were being taken for the protection of feathered creatures. In this work the Supervisor of Wild Life Protection and district bird officers received the able co-operation of a number of volunteer lecturers, who, in turn, were assisted in their work by the loan of lantern slides.

Lectures to the number of 152 were given during the year; 3,209 lantern slides were lent, and the following motion pictures of birds shown for a total of 101 times in all: *American Eider Duck*, *Bird Neighbours in Summer*, *Bird*

Neighbours in Winter, A Bird City, Birds Rare and Fantastic, Fleet Wings, Home of the Birds, Here and There with the Birds of Canada, Making Friends with Wild Life, North Shore, Nomads of the Ocean, Whistling Swans, Trumper Swans.

Game Conferences.—The Wild Life Division of the National Parks Service, Department of the Interior, Canada, was represented at the following meetings called to consider questions of conservation and of scientific importance in wild life matters: the Fifty-first Stated Meeting of the American Ornithologists' Union, at New York, on November 14-16, 1933; and the National Game Conference, held under the auspices of the American Game Association, at New York, on January 22-24, 1934. The Supervisor of Wild Life Protection (Canada) was appointed Chairman of the National Game Conference for the ensuing year.

The Advisory Board on Wild Life Protection, an inter-departmental organization, met once during the year and considered ways and means whereby the several departments of Government concerned could the more effectively co-operate with the newly constituted Institute of Parasitology, Canada, in its research work in the field of animal parasites.

GENERAL WILD LIFE

Snowshoe Rabbit.—The inquiry in connection with cycles of abundance of the snowshoe rabbit or northern varying hare was continued. Early in the year a questionnaire was sent to observers throughout Canada and the data obtained were forwarded to Mr. Charles Elton of the Bureau of Animal Population, Department of Zoology and Comparative Anatomy, Oxford University, England. It is a well known fact that cycles of abundance and scarcity in rabbits occur and these fluctuations have a direct relation to the fur trade, as rabbits are a main source of food for many fur-bearers. The object in carrying on this inquiry is to learn as much as possible concerning both the facts of this cycle and the possible causes. Periods of abundance and scarcity occur in wild life generally, and the rabbit inquiry has a broad application to the wider problem. The voluntary co-operation of the hundreds of observers throughout Canada who co-operated with the wild life division and with the division of the Department of Zoology of Oxford University is greatly appreciated.

Eel-grass.—Brant and Canada goose of the Atlantic seaboard have continued to suffer from an acute and widespread shortage of eel-grass (*Zostera marina*), which was formerly their principal food in that region.

Eel-grass, a flowering plant growing in shallow salt and brackish water in the north temperate zone, began to disappear on the central Atlantic coast of the United States about 1930. Its destruction extended rapidly northward and is known to have reached the vicinity of Gaspé, Quebec, in the autumn of 1932.

In the closing months of 1932 and the first half of 1933 the greater part of the stands of this plant on the shores of the St. Lawrence estuary and along the north shore of the gulf of St. Lawrence died, leaving only scattered and restricted groups of plants that were estimated to be less than one per cent of the quantity normally present in those regions. Before the end of the year the destruction of eel-grass extended throughout the continuous range of the plant on the Atlantic coast of North America, from Labrador to North Carolina, and was also reported to be spreading rapidly on the Atlantic coast of Europe.

The cause of this extraordinary mortality of a formerly abundant plant is being sought by intensive scientific research in Canada as well as in several other countries affected by it, but is not yet known with certainty, although it is believed to be a living organism of some kind.

Reports appearing in the press from time to time have indicated recession of the trouble and extensive renewed growth of the eel-grass, particularly in

southwestern Nova Scotia. These reports have frequently been accompanied by forecasts of an early return to normal conditions relating to eel-grass but, so far, such predictions have not been justified by events. The actual condition seems to be that the destructive organism or force is active principally in late summer and in autumn and is slightly or not at all active in spring and early summer, so that a considerable healthy growth of eel-grass may appear from seeds and surviving rootstocks between May and July, only to undergo epidemic destruction between August and December. No valid indications of a return to normal conditions have yet been recognized.

The National Parks Service has kept in close touch with the situation relating to eel-grass and with its effects on brant and Canada goose. Special investigations of conditions in particular areas have been made as required by officials of the Wild Life Division and regular reports during the critical periods of the spring and fall migrations of the waterfowl concerned have been furnished by forty specially qualified volunteer observers.

It has been found that the stocks of both brant and Canada goose along the Atlantic coast of Canada have been materially reduced, presumably as a result of the scarcity of eel-grass, and that many of the surviving birds are very thin and in poor condition. In some cases flocks of brant, a species which normally feeds only in salt water, were observed to be seeking food in upland fields. In recognition of the need for increased protection for these birds under such circumstances the daily bag limits for them in Nova Scotia and Prince Edward Island were reduced.

The question of building up a new stock of eel-grass or of some similar food plant by introduction of healthy material from elsewhere is under consideration. At the same time a close watch is being kept for the development at any point in the Atlantic region of stands of the plant with natural immunity or resistance to the present epidemic. Should such resistant plants be found, their spread and multiplication will be aided and encouraged as much as possible.

HISTORIC SITES AND MONUMENTS

The acquisition, preservation, and marking of historic sites of a national character proceeded steadily throughout the year. Sites are recommended for attention by the Historic Sites and Monuments Board of Canada which on this subject acts in an advisory capacity to the Department.

Of the thousand or more sites reviewed by the Board since the inauguration of this work in 1919, 297 have been declared of national importance and 200 marked by the erection of appropriate memorials. Of those recommended the following were marked during the year:—

First Submarine Telegraph in America, Charlottetown, P.E.I.—A tablet was affixed to the left-hand pillar of the portico over the entrance to the Provincial Building, to commemorate the laying of the first submarine telegraph cable in America. It extended from Carleton Head, P.E.I., to Cape Tormentine, N.B., and was laid by Frederick Newton Gisborne in November, 1852.

Fort Erie, Ont.—A tablet was attached to one of the remaining walls at Fort Erie, to commemorate the historical events associated with this old fort. These ruined walls and ramparts formed part of the third Fort Erie, built by the British between 1805 and 1808. The fort, which was dismantled in May, 1813, and rebuilt in the following January, was surrendered on July 3, 1814, to United States forces, who made it the rally point of an entrenched encampment and it was to this place the invaders were forced to flee for safety following their defeat at Lundy's Lane. The fort was unsuccessfully besieged by the British in August and September, 1814.

Capture of U.S.S. Ohio and Somers, Fort Erie.—A second tablet was affixed to the ruins of old Fort Erie, to commemorate the enterprise, skill, and undaunted courage of Captain Alexander Dobbs and seventy officers and men of the Royal Navy and Royal Marines in capturing the United States ships of war, *Ohio* and *Somers*, in lake Erie off that point, on the night of August 12-13, 1814.



Interior of Fort Chambly, Quebec (southeast corner).

PRESERVATION WORK

Repairs were made to the crib-work along the ocean front at Louisbourg Fortress, Cape Breton Island, N.S., and also to the entrance road. Restoration and preservation work was also undertaken at Fort Monckton, Port Elgin, N.B.; Fort Chambly, Chambly, P.Q.; Fort Lennox, Ile-aux-Noix, P.Q.; Fort Wellington, Prescott, Ont.; and Fort Langley, Langley, B.C.

ACQUISITION OF SITES

Jacques Cartier, Gaspé, P.Q.—Permission was obtained from the Right Reverend F. X. Ross, D.D., Bishop of Gaspé, for the erection on church property in the town of Gaspé of a memorial cross and tablet to commemorate the 400th anniversary of the landing of Jacques Cartier at the entrance to Gaspé harbour on July 24, 1534.

First Patent of Invention in Canada, Quebec, P.Q.—Permission was obtained from the Department of National Defence for the affixing of a tablet to the stone wall on the east side of Cote de la Montagne Street, adjacent to the steps leading to Laval-Montmorency Park, to commemorate the issue of the first patent of invention in Canada. This patent was granted on June 8, 1824, in favour of Noah Cushing of Quebec.

McKee's Purchase, Blenheim, Ont.—Permission was obtained from the town council to erect a monument, with tablet, in Memorial Park to commemorate the treaty made by Alexander McKee on May 19, 1790, with the Chippewa, Ottawa, Pottawatomic, and Huron Indians, when a great tract of land, comprising most of the present counties of Essex, Kent, and Elgin, and part of Middlesex, was peacefully acquired to provide homes for expatriated United Empire Loyalists.

Norway House, Man.—The Hudson's Bay Company has granted permission for the erection of a cairn and tablet near the company's buildings on the east bank of the Nelson river to mark the site of Norway House. This post, originally built on Jack river in 1812-13 by the Hudson's Bay Company, was rebuilt on the present site in 1825, and was a frequent meeting-place of the Council of the Northern Department of Rupert's Land.

Fort Alexandria, Alexandria, B.C.—An Order in Council was passed by the British Columbia Department of Lands, granting permission for the erection of a cairn and tablet in the southwest quarter of Lot 47, Cariboo District, to mark the site of Fort Alexandria, the last post established by the North West Company west of the Rocky mountains, built in 1821. This was the farthest point reached by Sir Alexander Mackenzie in his descent of the Fraser river in 1793. It was at this place that the great explorer, on the advice of the natives, decided to continue westward by another route which eventually brought him to the Pacific ocean at Bella Coola.

APPENDIX

The Alpine Club of Canada

(From the report of the Chairman of the Club-House Committee)

The club-house at Banff was open from June 28 to September 5, 1933. There was a good attendance throughout this period and although the total number accommodated was less than for the corresponding period in 1932, guests, on the average, stayed for longer periods.

A total of 386 guests registered, compared with 408 during 1932, regional representation being as follows:—

Alberta.. . . .	124	United States.. . . .	88
British Columbia.. . . .	32	British Isles.. . . .	28
Manitoba.. . . .	24	India.. . . .	2
Saskatchewan.. . . .	13	Hawaii.. . . .	1
Ontario.. . . .	21	Poland.. . . .	1
Quebec.. . . .	1	Switzerland.. . . .	1
Institute of Pacific Relations..	50		

In addition to the foregoing there was a total of 93 out-of-season guests (twenty-two parties, comprising members and friends) who made use of the double cabins which had been equipped for this purpose in accordance with the club's standing policy.

Increasing use was made of the club-house as a base for climbs inasmuch as most points of interest, not in the Banff area only, but in the Lake Louise region also, may now be reached by automobile in a very short space of time.

(From the report of the Secretary of the Club-House Committee)

The twenty-eighth annual camp of the club was held in Paradise valley, Banff National Park, from July 18 to July 31, 1933. Situated on the trail to and about a mile below the Giant's Steps, the main portion of the camp was located on the slope of mount Aberdeen, quarters for the men being across the creek on the flat below mount Temple. The camp was easy of access by the old trail from where the Moraine Lake road crosses Paradise creek, at which point a base camp and parking area for automobiles had been cleared and this was the main route into camp, although some members preferred the route over Saddle Back from Lake Louise. In addition, one party went in via Wenkchemna and Wastach passes and still another by Mitre pass.

On the whole weather conditions were favourable for camping, although cool at night occasionally. Picnics, walks, and photographic excursions were

undertaken in various directions—Annette lake, Giant's Steps, Mitre pass and Sentinel pass—and the popular two-day trip around the glaciers and passes was enjoyed by the members who took part in it. The Elizabeth Parker hut on the O'Hara meadows was used as a resting place on this occasion as well as a base for climbs which included mounts Biddle, Odaray, and Victoria. Ten members in four parties passed the test for active membership in the club by climbs on mounts Aberdeen and Temple. Climbs from the main camp were made on mounts Temple, Aberdeen, Pinnacle, Eiffel, and the Mitre. A solo climb of mount Temple by a new route was attempted while two members made a traverse of mount Pinnacle. Other activities included a long expedition to Eiffel peak via Sentinel pass and the return by Wastach pass. Members who took part in these proceedings were drawn from the United States, and Canada, and among the visitors were members from England and from India. Altogether 94 individuals were placed under canvas, compared with 112 for the preceding year on the occasion of the twenty-seventh annual meeting at Old Glacier House in Glacier National Park. The following organizations were represented: The Alpine Clubs of England, France, Switzerland, and United States; The Ladies Alpine Club; The Swiss Ladies Alpine Club; Royal Geographical Society; The Appalachian Mountaineering Club; The Mazamas, and the Sierra Club.

The annual meeting of the club was held in camp on July 28, when the work of the year was reviewed, and necessary business transacted.

THH NATIONAL PARKS OF CANADA

(Eighteen in number with a total area of 12,059 square miles)

Park	Location	Date established	Area in square miles	Characteristics
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,585.00	Mountain playground containing two famous resorts, Banff and Lake Louise. Massive ranges, upper slopes bare and worn, or glacier crowned lower slopes covered with luxuriant forests and flowered alplands; glacier fed lakes. Wild deer, goat, sheep, elk, etc. Recreation—alpine climbing, riding, swimming, golf, tennis, motoring, skiing, tobogganing, snow shoeing, skating, curling, fishing.
Buffalo.....	Eastern Alberta, near Wainwright.	1908	197.50	Fenced enclosure; home of the Dominion government buffalo herd. Over 6,000 buffalo, also moose, deer, elk, yak and hybrids.
Elk Island.....	Central Alberta, near Lamont.	1911	51.00	Fenced enclosure, containing over 1,600 buffalo, also moose, elk, and deer. Recreational area.
Fort Anne.....	Nova Scotia..... (Annapolis Royal).	1917	31 (acres)	National Historic Park—Site of early Acadian settlement of Port Royal, museum containing interesting relics of early days.
Fort Beausejour.....	New Brunswick, near Sackville.	1926	59 (acres)	National Historic Park—Site of old French fort erected middle of 17th century. Renamed Fort Cumberland in 1755 by British; original name was later restored.
Georgian Bay Islands (including Flower-pot island reserve).	In Georgian Bay near Midland, Ontario.	1929	5.37	Thirty islands in Georgian Bay, Beausoleil, largest of the group is a popular camping resort. Fine bathing beaches, beautiful groves of trees, varied bird and plant life. Flower-pot island, at head of Bruce peninsula has interesting limestone formations and numerous caves.
Glacier.....	Southeastern British Columbia on summit of the Selkirk range.	1886	521.00	Massive formation of the old Selkirk range; luxuriant forests, alpine flower gardens. Centre for alpine climbers. Illecillewaet and Asulkan glaciers and valleys; Nakimu caves. Marion lake, Rogers and Baloo passes.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.00	Immense mountain wilderness, rich in historical associations. Numbers of unclimbed peaks; glaciers, snow-fields, canyons, lakes of wonderful colouring; Athabaska valley, Maligne lake, Mount Edith Cavell; Miette hot springs; big game sanctuary. Recreation—alpine climbing, riding, swimming, golf, tennis, motoring, fishing.
Kootenay.....	Southeastern British Columbia along Banff-Windermere highway.	1920	587.00	Park extends five miles on each side of Vermilion-Sinclair section of Banff-Windermere highway. Deep canyons, Iron Gates, Briscoe range, Sinclair canyon, famed Radium Hot Springs. Bear, deer, caribou, and Rocky Mountain sheep.

THE NATIONAL PARKS OF CANADA—*Concluded*

Park	Location	Date estab- lished	Area in square miles	Characteristics
Mount Revelstoke...	Southeastern British Columbia on the summit of Mount Revelstoke.	1914	100.00	Nineteen mile drive up Mt. Revelstoke affording panoramic views of the Columbia and Illecillewaet valleys, Clach-na-Cuddin icefield, lakes Eva and Millar. Game sanctuary and winter sports resort.
Nemiskam.....	Southern Alberta, near Foremost.	1922	8.50	Fenced antelope reserve, containing more than 300 head of this interesting animal, a species indigenous to the region.
Point Pelee.....	Southern Ontario on lake Erie.	1918	6.04	Most southerly mainland point in Canada, 40° 54' N. Resting place of many migratory birds; summer resort and bird reserve; unique flora. Recreational area.
Prince Albert.....	Central Saskatchewan, north of Prince Albert.	1927	1,869.00	Forest country of northwestern Canada, birch, spruce, jack-pine, poplar; lakes and streams; moose, deer, bear, beaver and interesting bird life. Excellent fishing, northern pike, pickerel and lake trout; fine white sand beaches, ideal camping grounds.
Riding Mountain....	Southwestern Manitoba, west of lake Winnipeg.	1929	1,148.04	Rolling woodland country in western Manitoba dotted with several beautiful lakes. Natural home of big game including one of the largest herds of wild elk in Canada. Fine bathing and camping, summer resort; government golf course.
St. Lawrence Islands	In St. Lawrence river between Morrisburg and Kingston, Ontario.	1904	180.8 (acres)	Thirteen Islands among the "Thousand Islands" in the St. Lawrence river. Recreational area, camping, fishing.
Waterton Lakes.....	Southern Alberta adjoining Glacier park in Montana, U.S.A.	1895	220.00	Canadian section, Waterton-Glacier International Peace Park, Mountains noted for beauty of colouring; lovely lakes, picturesque trails; waterfalls, snow peaks, trout fishing, camping, government golf course.
Wawaskesy.....	Southeastern Alberta...	1922	54.00	Antelope reserve, as yet undeveloped.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.00	Rugged scenery on west slope of Rockies; Kicking Horse valley; lofty peaks, large number with permanent ice-caps or glaciers; famous Yoho valley with numerous waterfalls, one over 1,200 feet in height. Natural bridge, Emerald lake, lakes O'Hara and McArthur.

PUBLICATIONS AND MAPS AVAILABLE FOR DISTRIBUTION**National Parks of Canada***Parks*

Banff, Kootenay and Yoho National Parks
Elk Island National Park
Jasper Trails
Kootenay National Park and Banff-Windermere Highway
National Parks of Canada in Ontario
Prince Albert National Park
Riding Mountain National Park
Pocket Guide to Waterton Lakes Park
Waterton Lakes Park

Historic Sites

Guide to Fort Anne
Guide to Fort Chambly (Also available in French)
Guide to Fort Lennox (Available in French only)
Guide to Fort Wellington
The Lake Erie Cross

Migratory Birds

Migratory Birds Convention Act and Regulations
Attracting Birds with Food and Water
Bird Houses and Their Occupants
Lessons on Bird Protection

(These publications are also available in French)

Tourist Information

How to Enter Canada
Canada (folder)
Fishing in Canada
Sport Fishing in Canada
Winter in Canada
Canada's Game Fields
Canoe Trips in Canada
Canoe Trips to Hudson Bay; in the Maritime Provinces; in Quebec (Available only in French)
Road Maps of Canada and United States
 General sheet (Scale, 100 miles to 1 inch)
 Atlantic sheet (Scale, 30 miles to 1 inch)
 Great Lakes sheet (Scale, 30 miles to 1 inch)
 Middle West sheet (Scale, 35 miles to 1 inch)
 Pacific sheet (Scale, 40 miles to 1 inch)

COPIES OF THE ABOVE MAY BE OBTAINED FROM
THE COMMISSIONER OF NATIONAL PARKS,
DEPARTMENT OF THE INTERIOR,
OTTAWA, CANADA.

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NATIONAL PARKS

OF

CANADA

24
ANNUAL REPORT

OF THE

COMMISSIONER

1934/35

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FISCAL YEAR ENDED MARCH 31,

1934-1935

DEPARTMENT OF THE INTERIOR, CANADA

HON. THOMAS G. MURPHY, Minister

R. A. GIBSON, Assistant Deputy Minister

NATIONAL PARKS OF CANADA

J. B. HARKIN, Commissioner

ANNUAL REPORT

OF THE

COMMISSIONER OF NATIONAL PARKS

FISCAL YEAR ENDED MARCH 31,

1935

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OTTAWA, 1935



Morris Creek Bridge and Canyon—Miette Hot Springs Road
Jasper National Park

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

THE YEAR IN REVIEW

Excellent progress was made in all departments of the National Parks Service during the fiscal year 1934-35. Tourist figures for the year constitute a record for the National Parks, visitors numbering 710,778, compared with 593,774 for the corresponding period in 1933-34, an increase of 117,004, or 19·7 per cent. These figures reflect an ever-growing interest in the National Parks system as the common heritage of the people of Canada and of the ideals for which they stand in the life of the community. This interest is not confined to Canadians alone, a fact clearly demonstrated by the increasing number of visitors from across the international boundary, and overseas, who yearly visit the National Parks.

For the convenience of visitors and persons interested in Parks matters the Department maintains information bureaus in Banff, Waterton Lakes, and Riding Mountain National Parks, and during the tourist season 33,798 inquiries were dealt with, compared with 26,962 for the corresponding period in 1933, an increase of 6,836.

Conservation of the faunal resources of the National Parks has engaged the attention of the branch for many years and it is encouraging to note that in consequence of sanctuary conditions wild game has given evidence of steady increase.

Several donations were made during the year of specimens of wild animal life in the National Parks, one of particular interest being four specially selected young buffalo, a gift from the Government of Canada to the Republic of Poland, in connection with which transportation charges were borne by Polish residents of Canada.

The importance of preserving the forest wealth of the parks cannot be over-estimated and in that connection the warden service has done excellent work. Great assistance has been rendered by details of the Royal Canadian Air Force in the detection of forest fires by aerial patrols in Prince Albert Park and Riding Mountain Park. Sixty-two fires occurred in the National Parks during the year and damage was confined to the comparatively small area of 1,369 acres, only a portion of which carried valuable timber.

At the request of the Government of Nova Scotia an examination of proposed sites for a National Park of Canada was made by an officer of the Department in September and October.

Work on a relief basis continued until August when the Public Works Construction Act, 1934, came into force, although relief camps were re-opened for the winter in Riding Mountain Park, where work was provided for single, homeless men from Winnipeg and district. An extensive program of important projects was initiated and carried forward under the Public Works Construction Act for the remainder of the fiscal year.

Regular Parks work, consisting of maintenance of public services, was continued throughout the year. The necessity of a system of good roads in the

parks is well recognized and in furtherance of that policy the National Parks Service has in operation at the present time a total of 554 miles of standard all-weather roads, in addition to approximately 110 miles of secondary roads; more than 2,750 miles of trails and nearly 1,100 miles of forest telephone lines. The following is a summary of important road projects now under construction:—

	Length of Road	Constructed 1934-35	Previously constructed	Road to be constructed
	(miles)	(miles)	(miles)	(miles)
<i>Banff Park</i>				
Stoney Squaw Road.....	4.50	1.50	2.00	1.00
Banff-Jasper Highway (Lake Louise end).....	78.50	5.72	16.50	56.28
<i>Jasper Park</i>				
Banff-Jasper Highway (Jasper end).....	60.50	11.74	26.72	22.04
Miette Hot Springs Road.....	11.00	1.00	10.00	.....
Jasper-Yellowhead Road.....	17.40	0.18	2.92	14.30
<i>Elk Island Park</i>				
Southgate Road.....	7.00	1.50	5.50	.....
<i>Prince Albert Park</i>				
Rabbit-Meridian Road.....	13.00	9.50	3.50	.....
Narrows Road.....	10.60	.....	5.25	5.35
<i>Riding Mountain Park</i>				
Dauphin Road.....	24.00	5.50	4.70	13.80
<i>Waterton Lakes Park</i>				
Belly River Road.....	14.70	3.98	3.72	7.00
Totals.....	241.20	40.62	80.81	119.77

In addition, work on the Dominion Section (78 miles) of the Golden-Revelstoke Highway, (Donald to Boat Encampment) has proceeded as follows:—

	Length of Road	Constructed 1934-35	Previously constructed	Road to be constructed
	(miles)	(miles)	(miles)	(miles)
Golden-Revelstoke Highway.....	78.0	7.0	55.0	16.0

NATIONAL PARKS VISITORS

Since 1914 the increase in Parks tourist travel has been phenomenal. For example, taking the figures for the fiscal year 1914-15, with a total of 54,064 visitors and comparing them with those for the year under review, during which a total of 710,778 visitors was recorded, as the basis of computation, the increase in the number of Parks visitors exceeds 1,214 per cent. A very considerable proportion of this number sojourned in the parks for protracted periods, some remaining for a month or more, but as was natural, the stay of the vast majority would not be for more than from a few days to a week. In order to obtain some idea as to the number of individuals frequenting the campgrounds in the various parks in the West and the length of their stay, a record was kept for the first time during the season of 1934 (May to September, inclusive), and an analysis of the figures submitted in that regard discloses that 43,100 individual campers were furnished with accommodation for a total of 207,812 person-days, or an average stay of approximately five days per person. In addition, parking space was provided for a total of 11,783 motor vehicles.

Tourist figures by parks for the fiscal year 1934-35, which reveal an increase of 19·7 per cent, compared with those for the preceding year, are reproduced in the following table:—

VISITORS TO NATIONAL PARKS

National Park	1934-35	1933-34	National Park	1934-35	1933-34
Banff.....	142,774	132,264	Mount Revelstoke.....	6,000*	6,000*
Buffalo.....	12,992	12,631	Nemiskam.....	25	21
Elk Island.....	53,769	47,487	Point Pelee.....	207,892	149,380
Fort Anne.....	13,176	14,000*	Prince Albert.....	21,108	19,126
Fort Beausejour.....	4,500	5,614	Riding Mountain.....	100,035	91,652
Georgian Bay Islands.....	5,919	6,780	St. Lawrence Islands.....	15,000*	15,000*
Glacier.....	1,000*	1,000*	Waterton Lakes.....	36,765	32,844
Jasper.....	10,757	13,489	Yoho.....	34,319	13,688
Kootenay.....	44,747	32,798			
			Totals.....	710,778	593,774

* Estimated.

APPROPRIATIONS

Appropriations totalling \$3,784,399 were made available for expenditure on Parks account as follows: (a) Parks Vote, \$1,041,399; (b) Relief Act, 1934, \$593,000; and (c) Public Works Construction Act, 1934, (item 5), \$150,000; (item 78), \$2,000,000. During the period covered by this report the following public monies were expended under authority of the above, (a) \$1,023,898.99; (b) \$515,910.69; (c) subsequent to August 1, 1934, \$894,592.51; total, \$2,434,402.19.

ENGINEERING

Of the many activities associated with the administration of Canada's National Parks none perhaps is more important than its field engineering. The inter-relation between good roads and the promotion of tourist travel needs no demonstration, since in this age of mechanical transport, one is the corollary of the other, and it is because of this circumstance that a very considerable proportion of the funds voted annually for Parks work is expended on road construction and maintenance. The National Parks Service, at the present time, maintains more than 660 miles of road, 85 per cent of which is constructed to standard grade and suitable for traffic under all-weather conditions.

During the year 1934-35, road work under regular Parks appropriation was limited largely to maintenance, new construction having been carried on with funds provided under the Relief Act, 1934, and the Public Works Construction Act, 1934.

(a) *General Engineering*.—Under this heading various public utilities may be cited, including maintenance and operation of electric lighting and power plants; water and sewer systems; municipal and forest telephone systems; wharves and breakwaters, drainage and reclamation. These and many more like activities were maintained throughout the year.

(b) *Relief Act, 1934*.—The Department of the Interior has been carrying on operations in the National Parks since 1930 for the relief of workless men, and in so doing has selected projects designed to provide employment for the maximum number of individuals at a minimum outlay on capital account for machinery and equipment. Relief camps were continued, during the year under review, although the degree of these operations necessarily was influenced after August 1, by the Public Works Construction Act, 1934. Work on a relief basis was undertaken in a number of the parks from April 1 to July 31, 1934, when the

Public Works Construction Act came into force. However, owing to the fact that the building program under the latter legislation could not be carried out in its entirety during the winter months, and also to meet local unemployment conditions, notably in the Winnipeg area, relief camps for single, homeless men, were re-opened in Riding Mountain National Park early in January and operated until the close of the fiscal year. To meet a somewhat similar situation as affecting permanent residents in a few of the mountain parks, a limited number of men were found employment—single local men on a relief basis and men with domestic responsibilities on a quota rating. A total appropriation of \$593,000 was authorized under the Relief Act, 1934, to defray cost of both summer and winter relief works, and during the periods in question 6,387 individuals were given employment, which in the case of single, homeless men amounted to 283,246 man-days of relief, and in that of permanent Park residents (with dependents) 17,096 man-days of work, involving a total expenditure of \$515,910.69. The work accomplished on the foregoing basis is reviewed in the section of this report devoted to unemployment relief undertakings.



Grading on steep side-hill, Mile 35—Golden-Revelstoke (Big Bend) Highway

(c) *Public Works Construction Act, 1934.*—A credit of \$2,150,000 was made available for expenditure by the Department of the Interior, for the most part on public works and undertakings in the National Parks of Canada, and for works associated with the restoration and improvement of historic sites.

Operations under the Public Works Construction Act began on August 1. Activities upon which the National Parks Service was engaged reached their peak in October with the employment of 2,841 men, decreasing considerably during the winter months following. An expenditure of \$894,592.51 was incurred during the eight-month period ended March 31, 1935, nearly 80 per cent of which was absorbed in wages and salaries. Details of the work carried out under the Public Works Construction Act, 1934, appear in the Unemployment Relief Section of this report. New road construction constituted an important item in this work. The road work done included: clearing, 35.25 miles; grading, 40.02 miles; gravelling, 54.98 miles, besides bridge and culvert construction and other features of road building.

In addition to the works to which reference already has been made, the program of the National Parks Service under the Public Works Construction Act, 1934, includes, among other things, the following: construction of administration and community buildings, museums, bathhouses, gateway registration buildings, garages, wardens' cabins and staff quarters; the extension of water and sewer systems, municipal and forest telephone systems, and the installation of light, heat, and power plants.

(d) *Golden-Revelstoke Highway*.—Satisfactory progress was made on the Dominion section during the year under review, details of which have been incorporated in the general review of unemployment relief under (1) Relief Act, 1934, and (2) Public Works Construction Act, 1934.

UNEMPLOYMENT RELIEF

Under the Relief Act, 1934, 6,387 individuals were provided with relief during the fiscal year 1934-35, comprising 4,725 single, homeless men; and 493 permanent Park residents with domestic responsibilities, involving 1,169 dependents. Relief work on this basis was distributed over two periods, April 1, to July 31, 1934, and January 1, to March 31, 1935. Most of the work furnished on a relief basis during the winter of 1934-35 centred in Riding Mountain National Park, where a total of 936 single, homeless men, drawn largely from Winnipeg, were accommodated and given useful employment.

Operations under the Public Works Construction Act, 1934, commenced on August 1 of that year, and during the eight months ended March 31, 1935, employment at prevailing wages was found for the following number of men monthly: August, 2,113; September, 2,658; October, 2,841; November, 2,316; December, 440; January, 102; February, 92; March, 111.

The activities outlined in the following schedule are indicative of the character of the projects undertaken or in process of construction:—

Banff National Park

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

(a) *Single, Homeless Men*—

Healy Creek and Spray Valley: trail construction and improvement, including excavation work and grading.

Eldon Hills Revision: cut and fill; gravelling, culvert construction.

Hillsdale Improvement: widening and gravelling.

Stoney Squaw Road: clearing, grubbing, excavation work, grading and surfacing.

Banff-Jasper Highway (Lake Louise End): stumping and grubbing, 0.96 miles; grading, 1.31 miles; gravelling, 1.81 miles; culverts, 30; ditching, 1.01 miles.

(b) *Permanent Park Residents*—

Stoney Squaw Road: maintenance and construction.

Animal Paddocks, Zoo: general repair work; constructing concrete sidewalks; painting; transporting single, homeless men and supplies to relief camps; cleaning up around headquarters buildings and at campgrounds.

(Period March 1 to March 31, 1935)

(a) *Single, Homeless Men (locals)*—

Clearing and brushing; snow removal.

(Period, January 1 to March 31, 1935)

(b) *Permanent Park Residents—*

Stoney Squaw Road: snow removal, grubbing, 0.5 miles; grading, 0.28 miles.

Banff-Castle Road: improvement at Mile 1.5, cut and fill; quarrying stone from mount Rundle for new administration building; clearing, grubbing and burning brush on golf course fairways.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934

(Period, August 1, 1934, to March 31, 1935)

Banff-Jasper Highway (Lake Louise End): clearing, 3.37 miles; grubbing, 5.08 miles; grading, 4.37 miles; gravelling, 2.91 miles; ditching, 0.99 miles; culverts constructed, 59; also two 80-foot span truss bridges and 4 common bridges (98,500 f.b.m. cut lumber).

Stoney Squaw Road: clearing, 1 mile; grubbing, 0.5 miles; grading, 0.5 miles; gravelling, 1 mile; ditching, 1.5 miles; culverts, 13; also trail extension and parking area on latter road.

Spray Avenue Improvements: 787 cubic yards of rock crushed and piled.

Banff-Castle Road: grading.

Lake Louise Road: bridge at Fortymile creek.

Banff-Calgary Road: bridge at Carrot creek.

Tunnel Mountain Campgrounds: sewer construction.

Upper Hot Springs: caretaker's cottage 90 per cent completed.

Aeroplane Landing Field: 27 acres cleared and grubbed; 8.2 acres graded.

Site of new Administration Building: landscaping grounds, involving excavation work.

Jasper National Park

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

(a) *Single, Homeless Men—*

Patricia Lake Auto Campsite: cutting camp firewood; raking, levelling and terracing lots, cutting trail; and general maintenance work.

General Park Improvement: clearing and brushing.

Banff-Jasper Highway (Jasper End): grubbing, 1 mile; grading, 4.5 miles; gravelling, 2 miles.

Jasper Highway, East: maintenance and improvement.

Miette Hot Springs Road: grading, 0.4 miles; campsite development, including 28 acres cleared for parking ground.

Jasper-Yellowhead Road: maintenance and improvement.

Edith Cavell Road: maintenance and improvement.

(b) *Permanent Park Residents—*

Engineering Service Office: completing construction of buildings.

Townsite Improvement: clearing and burning brush, southwestern area of townsite.

Sewer System: excavating for and laying pipe-line, backfilling, etc.

Animal Paddocks, Fences, and Corrals: general repair work and improvement, extending corral fence, and filling around grounds near Government premises.

General Improvement: replanting trees on boulevards and streets, improving townsite streets; clearing, brushing and burning debris on lots at Cottonwood Creek auto campsite, also helping with construction of two camp kitchens.

(Period, February 20 to March 31, 1935)

(a) *Single, Homeless Men (locals)*—

General Improvement: clearing and brushing 18 acres; cutting and peeling 2,578 linear feet log timber; camp maintenance.

(Period, January 11 to March 31, 1935)

(b) *Permanent Park Residents*—

General Improvement: clearing and brushing 13·2 acres at Cottonwood Creek auto campsite, cutting camp firewood.

Townsite Improvement: clearing and removing boulders from Government reserve; removing rock and shovelling snow Jasper townsite; widening old C.N.R. cut on Maligne Canyon road, preparations for widening Pyramid Road hill from townsite to Mile 1; sanding sidewalks.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934 to March 31, 1935)

Banff-Jasper Highway (Jasper End): cutting and clearing 8·29 miles; stumping and grubbing, 8·35 miles; grading 7·49 miles; gravelling, 12·79 miles; new tote road construction, 3·74 miles.

Jasper-Yellowhead Road: cutting and clearing, ·07 miles; grading, 0·18 miles.

Miette Hot Springs Road: widening, 4·13 miles; gravelling, 2·85 miles.

Edith Cavell Road: widening, 0·31 miles.

Patricia Lake Auto Campsite: laying water mains and erecting water tank; trenching for sewer and providing outlet; underbrushing 4 acres.

Connaught Drive Boulevard: filling and levelling; constructing retaining wall; also boulder curb; removing boulders.

Aeroplane Landing Field: clearing and grubbing, 15 acres; filling holes and rolling, 15 acres; filling and rolling centre strip 300 feet wide, 25 acres; grubbing ground cedar, 20 acres; removing or burning debris and cleaning up.

Jasper Sewer System Extension: excavating ditch, 2,473 feet; laying pipe, 2,560 feet, manholes, 5; backfilling and cover, 5,005·4 cubic yards.

Waterton Lakes National Park

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

(a) *Single, Homeless Men*—

Belly River Road: grubbing, 2 miles; grading, 0·68 miles; gravelling 2·26 miles.

Akamina Road: maintenance and improvement.

Recreation Areas: clearing and rock excavation; general improvement.

(Period, January 18 to March 31, 1935)

(b) *Permanent Park Residents*—

Akamina Road: widening and constructing rock retaining wall.

Cameron Creek Improvement: clearing creek and constructing crib work.

General: keeping roads and townsite streets free of snow and open for travel.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934 to March 31, 1935)

Belly River Road: grubbing, 3·45 miles; grading, 3·2 miles; gravelling, 0·73 miles; constructing Belly River bridge (completed).

Public Campgrounds: building camp kitchens and sanitary conveniences.

Addition to General Stores Building: construction of building completed and approaches levelled and gravelled.

Entrance Registration Building: building nearly completed; road approaches widened and graded.

Yoho National Park

1. RELIEF ACT, 1934—

(Period, April 1 to May 16, 1934)

Permanent Park Residents—

Emerald Lake Road: maintenance and improvement (Mile 0·2).

Field Townsite: grading streets, etc., and cleaning up.

(Period, February 1 to March 31, 1935)

Permanent Park Residents—

Yoho Road: widening at Mile 1·3, involving rock excavation.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934 to March 31, 1935)

Stephen-West Boundary Road: clearing, 2 acres; grubbing, 1 acre; widening, 2·05 miles; removing snow, 1 mile.

Yoho Road: widening at Mile 1·4 and from Mile 5·8 to 5·9, involving rock excavation and fill.

Kicking Horse Campgrounds: constructing community shelter building (completed); Blacksmith Shop (Field): construction well under way at January 29, when work closed down for remainder of winter.

Kootenay National Park

1. RELIEF ACT, 1934—

(Period, April 1 to May 15, 1934)

Single, Homeless Men—

Banff-Windermere Road: maintenance and improvement.

Radium Hot Springs Campgrounds: completing Caretaker's cottage; erecting log-work for bridge at campgrounds.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934, to March 31, 1935)

Banff-Windermere Road: clearing, 0·6 miles; grubbing, 0·3 miles; grading, 0·6 miles; widening, 1·76 miles; erecting bridge (70-foot span) over Kootenay river (15 per cent completed); constructing concrete retaining wall.

Radium Hot Springs Bathhouse: completing addition.

Radium Hot Springs Campgrounds: constructing community shelter building (nearing completion).

Elk Island National Park

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

Single, Homeless Men—

South Gate Road: grubbing, 1 mile; grading, 0·5 miles.

Sandy Beach: completing two new bathhouses commenced in 1933-34; constructing kitchen shelters and completing recreation building.

Golf Course: clearing, brushing and cultivating fairways (70 per cent completed); completing fence.

Recreation Areas: constructing booths, walks, steps, wells and fences, also campgrounds, parking areas and diving platforms; cutting and hauling firewood.

Main Park Roads: general improvement.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934, to March 31, 1935)

Sandy Beach Road: maintenance, 8 miles; gravelling, 6.06 miles.

South Gate Road: grubbing, 0.5 miles; grading, 1 mile; gravelling, 4.07 miles.

General Development: (a) Sandy Beach: clearing campsites and constructing road to campgrounds, 700 feet; concrete stoves, tables, benches and fences, also maintenance of bathhouses and beaches; (b) Golf Course: grubbing fairways, removing rocks, and cultivating land; also constructing greens, including provision for drainage (work on fairways and greens 90 per cent completed).

Prince Albert National Park

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

Single, Homeless Men—

Rabbit-Meridian Road: grubbing, 6 miles; grading, 2 miles; bridge and culvert construction.

South Gate Road: widening and placing of road signs.

Prince Albert Park Highway (Park Section, 35 miles): general improvement and culvert construction.

Community Building: completing building and cleaning up and seeding grounds to grass; building interior fittings and furniture.

Waskesiu Campgrounds: improving and painting buildings; improving grounds and bathing facilities.

Golf Course: clearing and brushing fairways; mowing lawns and general maintenance.

Tennis Courts: general improvement.

Sewer System: excavation and repair work; constructing new concrete sections and catch basins.

Waskesiu Telephone Line: general extension work, including brushing.

Bandstand: completing stone steps and other fittings.

Registration Building: completing addition; painting and interior work.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934, to March 31, 1935)

Rabbit-Meridian Road: grubbing, 3 miles; grading, 7.38 miles; gravelling, 6.57 miles; tote road construction, 0.5 miles; bridge at Mile 10.

Prince Albert Park Highway: revision and widening; re-gravelling; maintenance, including rebuilding or replacing of culverts and rebuilding of McKenzie Creek bridge.

Recreation Area and Golf Course: camp maintenance; improving tennis courts and widening golf course fairways.

Waskesiu Lake Area and Campgrounds: completing refrigerator buildings, Nos. 1 and 2; cutting and packing ice (213 tons); improving diving facilities; removing rock from tennis courts; cutting and hauling fence posts; sawing and assembling firewood.

Golf Clubhouse: completing construction of building externally, except painting, and interior fittings partly finished.

Staff Quarters: completing construction of building externally, except painting; interior 50 per cent completed.

Riding Mountain National Park

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

Single, Homeless Men—

Park Buildings: completing wardens' cabins, East Gate and North Gate, respectively; gatekeeper's cabin, East Gate; tennis pavilion, Wasagaming; second bathhouse, Main Beach; living quarters for Royal Air Force personnel at Air Force Station on Clear lake; also storehouse and implement shed.

Landscape Work: continuing work of beautification, including old English Garden lay-out at Museum building, rustic fences, native oak pergola, large concrete vases and planting of trees and shrubs.

Campgrounds: extending ground lots for campers and constructing nine additional kitchen shelters, provided with two stoves each, also one additional ice-house; grubbing and improving streets and grounds generally.

Breakwater: effecting improvements on 620-foot breakwater on Clear lake, also constructing lockers for boat equipment and outboard motors.

Bridle Path, North Shore of Clear Lake: constructing bridle path from east end of lake westerly as far as surveyed.

Vermilion Bridge, Strathclair-Lake Audy Road: finishing work proceeded with, i.e., constructing rails and approaches, also painting.

Exhibition Animal Pasture: erecting wire fence around extension to enclosure.

Golf Course: completing second nine holes, including tees and greens, tee boxes, benches, and four shelters.

Road Construction and Maintenance: general construction was continued on the Lake Shore road from Wasagaming to golf course, and junction of Norgate road; also grading and widening townsite streets; Dauphin Road: clearing, 0.6 miles; grubbing, 0.6 miles; grading, 1.2 miles.

(Period, January 1 to March 31, 1935)

General Development: clearing and breaking, hauling logs for building materials, cutting cordwood. These operations resulted in 511 acres cleared, 85,106 feet board measure, logged, and 655 cords of firewood cut.

Reclamation Work: clearing 43.7 acres previously drained west of campgrounds (to provide large recreation area, or aviation landing field); also driveway from east end of Clear lake to reclaimed ground, involving removal of 5,229 cubic yards of fill; use of 133 cubic yards of rock for rip-rapping; driving of 93 piles; excavation of 554 cubic yards of ditching, and use of 12,206 linear feet of native timber for cribbing.

Beach Improvement: constructing boat landings and ramps of pile timber and rock fill; additional rock fill at breakwater.

Townsite Improvement: rip-rapping cuts and fills on townsite streets in residential section; providing additional drainage; clearing driveways and lanes and constructing hub-rails.

Lake Shore Promenade: extending 1,800 feet of promenade, now almost two miles in length, to serve campgrounds and make shoreline more accessible.

Stone Arch Bridge: constructing bridge over Bogey creek at east end of Clear lake (partially completed).

Miscellaneous: work including gravel crushing operations, constructing benches, chairs, tables, concrete slabs for walks, electric light standards; maintenance and repair of machinery and equipment.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934, to March 31, 1935)

Golf Course: completing second nine holes and making improvements on original nine holes of course.

Lake Shore Drive: grading and surfacing three miles of Lake Shore road to golf course and vicinity, including hub-rails.

Campgrounds: completing exit road and extension to camp drainage system, also repairing drainage sump.

Townsite Improvement: draining and filling at Wasagaming; landscaping; grading and terracing grounds of tennis pavilion; improving and partly surfacing townsite streets; placing hub-rails; widening, curbing and gravelling main road through Wasagaming; assembling electric light poles for transmission lines.



Timber for bridge work—Golden-Revelstoke (Big Bend) Highway

Road Construction and Maintenance: Dauphin Road: grubbing, 2 miles; grading, 4.3 miles; gravelling, 5.5 miles.

Norgate Road: clearing and grubbing, 0.5 miles; grading, 0.5 miles; widening and regrading, 6.5 miles; gravelling, 7 miles; culverts, 4; maintenance, 18.5 miles. Lake Audy-West Road: clearing and grubbing, 2.5 miles; relocating telephone line, 0.3 miles.

Golden-Revelstoke Highway

(Dominion Section, Golden to Boat Encampment)

1. RELIEF ACT, 1934—

(Period, April 1 to July 31, 1934)

Single, Homeless Men

Completed Section (50 miles): clearing highway. Graded Section (12 miles): clearing road to Tsar creek; general road improvement; new construction (excavation) at Miles 62, 63, 64, 68, 72 and 73; clearing, 2.5 miles; grubbing, 1 mile; grading, 1 mile; tote road, 0.5 miles.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934—

(Period, August 1, 1934, to March 31, 1935)

Completed Section (50 miles): maintenance and improvement.

New Work: clearing, 6·8 miles; grubbing, 4·9 miles; grading, 4 miles; gravelling, 5·5 miles; tote road, 7·9 miles; Cummins Creek bridge, superstructure 85 per cent completed; Sullivan River diversion, excavating for new channel; culverts, 27; repainting bridges.

PARK ROADS, TRAILS AND TELEPHONE LINES

The provision of all-weather standard roads throughout the National Parks system has been pursued actively for many years. Good progress was made in this direction during the year. Several hundred miles of roadway were kept in a state of repair and in service throughout the tourist season.

Considerable new road mileage was completed during the season of 1934 with funds provided under the Relief Act, 1934, and Public Works Construction Act, 1934, details of which appear elsewhere in this report.

The total mileage of roads, trails and telephone lines in the various parks indicated is given in the table below.

MEANS OF TRAVEL AND COMMUNICATION

Region	Roads			Trails	Telephone Lines
	Motor	Secondary	Total		
Banff National Park (including Lake Louise end, Banff-Jasper Highway)...	123·15	19	142·15	693·50	215
Buffalo National Park.....	2	30	32	55	35
Elk Island National Park.....	15·20	2	17·20	3·75	.....
Glacier National Park.....	.....	11·50	11·50	108·50	7
Jasper National Park (including Jasper end, Banff-Jasper Highway).....	116	33	149	690	353
Kootenay National Park.....	63	8	71	121	60
Mount Revelstoke National Park.....	18	.....	18	35·50	17
Point Pelee National Park.....	7	.....	7	.....	.....
Prince Albert National Park.....	54·25	.....	54·25	478	130
Riding Mountain National Park.....	70·70	.....	70·70	154	171
Waterton Lakes National Park.....	37·45	.....	37·45	234	58
Yoho National Park.....	47·25	6	53·25	180	48
Total.....	554·00	109·50	663·50	2,753·25	1,094

WILD LIFE CONSERVATION

Besides the facilities they afford for recreation and sport, and the part they play in the promotion of tourist travel, the National Parks of Canada fulfil yet another important function in the life of the Dominion, namely, as sanctuaries for the wild life indigenous to the country. During the past twenty-five years there has been developed a system of game patrol throughout all parks by means of a staff of wardens, each of whom is charged with responsibility for enforcement of the game regulations in the district to which he has been assigned, an arrangement that has proved to be eminently satisfactory. In addition to policing the parks, wardens act as field observers in determining the fluctuations of game life, and upon them also devolves the duty of adequate control of predatory animals. A review of the reports of these officers indicates that practically all species of game mammals and birds have given indications of an increase in number.

In addition to the nine scenic parks administered by the National Parks Service in Alberta, British Columbia, Saskatchewan, and Manitoba, there are in the Province of Alberta also four wild animal reserves, three of which are fenced.

These animal reserves are maintained for the propagation of certain species indigenous to the prairie regions of North America, notably buffalo, moose, elk, deer, and antelope. The animals have increased under rigid protection afforded. The transfer in 1931 of a small herd of buffalo from Buffalo National Park to Riding Mountain National Park also met with instant success, and the health and contentment of the animals indicates the suitability of their new environment. A noteworthy event of the year was the shipment of four young buffalo to Poland, where they arrived safely and in good condition, a donation from Canada to the Government of that Republic.



Canadian Buffalo in grounds of Presidential Palace at Spala, near Warsaw, Poland

A census of wild animals in fenced enclosures as at March 31, 1935, is reproduced in the following table: —

ANIMALS IN FENCED PARKS

Animal	Banff Park Paddock	Buffalo Park	Elk Island Park	Nemiskam Park	Riding Mountain Park Paddock	Total
Antelope.....		2		340		342
Buffalo.....	29	4,772	2,000		42	6,843
Domestic cattle.....		15				15
Elk.....	28	1,389	496		38	1,951
Four-horned sheep.....	6					6
Hybrid (cattalo).....		27				27
Moose.....		115	368		4	487
Mule deer.....		2,548	232		4	2,784
Rocky Mountain goat.....	1					1
Rocky Mountain (bighorn) sheep.....	5					5
White-tail deer.....					5	5
Yak.....	7	45				52
Totals.....	76	8,913	3,096	340	93	12,518

FOREST FIRE CONTROL

Forest fires occurred during the month of August, the worst being in Banff and Glacier National Parks. A period of extremely hot dry weather, with high winds, increased the difficulties of the fire-fighting organizations very materially and the fact that more damage was not done may be attributed to the prompt and efficient measures taken for fire suppression. The Banff Park outbreak occurred on August 20 and continued for nineteen days, burning over 300 acres of park land and some timber. The fire in Glacier Park extended from August 19 to September 20 and was confined to 600 acres. In addition to the above an outbreak of fire which occurred on Sage creek in British Columbia and which extended to Castle river in Alberta seriously threatened Waterton Lakes Park for some days.

The measure of protection required for the control of fire on forested land is largely determined by weather and in this connection the fire-hazard table, prepared by the Forest Service of the department and used during part of the season, proved of value to those responsible for fire suppression.

The number of fires in National Parks during the fiscal year 1934-35, the extent of damage, and the cost of suppression, are given in the following table:—

GENERAL FIRES

Region	Fires	Area burned	Cost of extinguishing
	No.	acres	\$
Banff National Park.....	16	318.25	5,421.95
Jasper National Park.....	5	0.75	58.78
Kootenay National Park.....	6		
Yoho National Park.....	2		92.03
Glacier National Park.....	1	600.00	3,303.09
Prince Albert National Park.....	6	182.00	57.30
Riding Mountain National Park.....	19	264.80	461.25
Waterton Lakes National Park.....	2	0.25	1,106.96
Buffalo National Park.....	1	3.00	11.93
St. Lawrence Islands National Park.....	1		9.00
Point Pelee National Park.....	1	300.00	
Total.....	60	1,669.05	10,522.29

RAILWAY FIRES

Banff National Park.....	1		
Grand Total.....	61	1,669.05	10,522.29

LANDSCAPE AND ARCHITECTURE

Temporary increase of the staff of the Architectural division was made necessary following the coming into force on August 1, 1934, of the Public Works Construction Act, 1934, in preparing plans and specifications of buildings and other public works undertaken in the National Parks of Canada as a result of that measure. This was in addition to the regular Parks program which includes the examination of plans and specifications of all buildings for the construction of which permits have been granted to private individuals in the National Parks for residential or commercial purposes, an important part of its functions being to co-ordinate the requirements of the builder with the physical setting of the project on the ground.

During the year a number of Government projects were begun, the plans for which were prepared or revised by the Architectural division. The more important of these follow:—

Banff National Park.—Post Office and Administration building; Registration building and Staff quarters at Eastern Entrance; Central garage; addition to Cave and Basin bathhouse.

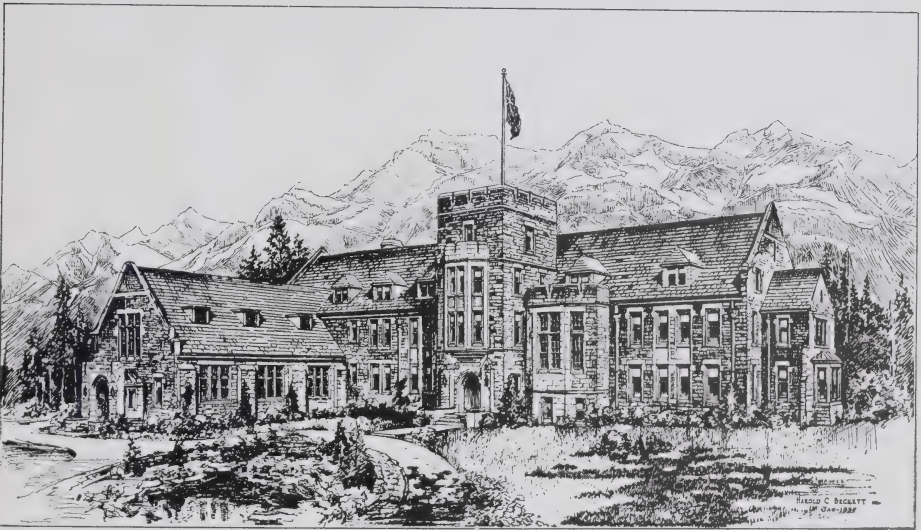
Jasper National Park.—Preliminary plans for the new bathhouse and swimming pool at Miette Hot Springs.

Yoho National Park.—Blacksmith shop.

Waterton Lakes National Park.—Registration building.

Kootenay National Park.—Additions and alterations to bathhouse.

Prince Albert National Park.—Golf clubhouse; buildings for Staff quarters; Museum building.



Post Office and Administration Building, Banff, Alberta

(From an Architect's perspective)

Riding Mountain National Park.—Buildings for Staff quarters; Power-house; Fire-hall; addition to Wasagaming subdivision.

Fort Anne, N.S.—Plans for the remodelling of the Museum and the carrying out and supervision of the work.

Fort Louisbourg, N.S.—New Museum.

Fort Beauséjour, N.B.—New Museum.

Fort Chambly, P.Q.—New Museum.

Gaspé, P.Q.—Cartier memorial cross and layout of grounds.

An architect of the division supervised the remodelling of the Museum building, formerly the Officers' Quarters, at Fort Anne, N.S., a structure erected nearly a century and a half ago. Owing to the condition of the walls, revision has been necessary of the original plans for the restoration of the building in order to make it a fire-resisting structure.

PUBLICITY

The Publicity division was particularly active during the year in directing attention to the recreational and educational advantages of the National Parks of Canada, and a measure of the success attained is reflected in the increased attendance registered at the majority of these great national playgrounds.

Canada's heritage in the possession of her scenic Parks is being brought constantly to the attention of the public through the medium of lectures supported by showings of motion pictures and lantern slides descriptive of the wild life and natural beauties of the parks; by the loaning of motion picture films, lantern slides, cuts, matrices, and stereotypes, and the distribution of prepared press articles, attractively designed pamphlets, maps, photographs, and souvenirs. Other publicity mediums include specially written musical compositions, and radio broadcasts, also exhibits of mounted wild mammals and birds, framed oil paintings, photographs, and coloured photographic transparencies. Excellent publicity was obtained through the efforts of voluntary writers and lecturers, who were furnished with descriptive material and other special information, and also loaned photographs, films, and slides.

Another effective agent in making known the attractions of the National Parks has been found in the development of a motion picture library, containing 102 complete stories in motion picture film, comprising a total of 921 prints, all of which are available in 35 millimetre size, and a considerable number in 16 millimetre. These films, which are of the silent type, are produced, edited, and titled in the division and released for public showing through loans to various organizations, such as, conservation societies, business clubs, universities, schools, churches, and voluntary lecturers.

During the past year 25,438 feet of negative film and 85,101 feet of positive film were added to the film library, comprising 122 new prints, of which number 38 prints were in 35 millimetre and 84 prints in 16 millimetre. Seven new film stories were released for showing under the following titles: *Canada's Evergreen Playground*; *Climbing Mount Tupper*; *Climbing in the Yoho*; *Jasper of the Lakes*; *Staking Big Game*; *The Trail to Jasper*; *Waterton*.

As a maximum of publicity can be obtained only through adequate facilities for distribution, appropriate arrangements were completed during the year to this end. Through the co-operation of distribution agencies, National Parks films are in circulation in cities of the United States, Great Britain, France, Austria, Czechoslovakia, Holland, Norway, India, Australia, New Zealand, and Hawaii, in addition to Canada. It is conservatively estimated that the annual attendance at foreign showings of National Parks films exceeds one million persons. The following comparative statement of the distribution of National Parks films during the past three years is indicative of the increasing interest in the work of the branch: 1932-33, 740 films; 1933-34, 910 films; 1934-35, 1,721 films.

The arrangement by which National Parks scenic and wild animal subjects have been adapted to sound, and distributed to theatrical exhibitors, has been continued. These films, which include *Grey Owl's Little Brother*, *Let's Go Skiing*, *She Climbs to Conquer*, *Grey Owl's Strange Guests*, *Sky Fishing*, and *Return of the Buffalo*, are being shown throughout Canada, the United Kingdom, other parts of the British Empire, and the United States. During the past year also 730 films were exhibited in Ottawa and district.

The division's lantern slide library, which contains several thousand slides depicting the scenery, fauna, and flora of the National Parks, met an increased demand for publicity material. During the year the library stock was increased by the addition of 556 slides, and 5,026 slides, with suitable notes, were loaned to lecturers, universities, schools, and other educational organizations in Canada, United States, Great Britain, and other countries.

During the past winter and early spring an extensive lecture tour was carried out by the Director of Publicity, and addresses, supported by showings of motion pictures, were delivered in Cleveland and Dayton, Ohio, in New York City, and in many cities and towns in the Northwestern United States and Western Canada. During the three-month period ended March 31, 1935, eighty-seven addresses were delivered, 392 films were shown to audiences numbering in some instances as many as 2,500 persons, and the total number of individuals addressed is estimated at 25,000.

A notable feature was the demand for articles descriptive of the scenic and recreational attractions of National Parks. Several feature articles, averaging 2,000 words apiece, were prepared for tourist and vacation numbers of well known periodicals, and many other articles descriptive of the wild life, history,



National Parks of Canada Exhibit at the Canadian National Exhibition, Toronto, 1934

and general features of the National Parks were supplied, on request, to editors, publishers, and writers. Nearly all articles distributed were supported by a suitable assortment of photographs, half-tones, or matrices as material for illustration purposes.

An excellent avenue of publicity has been developed in the distribution of photographic prints depicting the scenery, wild mammal and bird life, and recreational features of National Parks. These pictures are in great demand by writers, newspaper services, magazine publishers, and others. During the past year a greatly increased distribution of material was made, including 10,034 standard prints, 157 enlargements, and 292 special prints. The photographic library was augmented by the addition of 281 new negatives, and 7,069 photographic prints. A steady demand for half-tones, stereotypes, and matrices during the year resulted in a distribution of nearly 300 to editors, publishers, and publicity writers.

To cope with the increasing demand for literature descriptive of the National Parks of Canada, a third edition of 25,400 copies of the pamphlet *Riding*

Mountain National Park was printed. Three thousand copies also were printed of the Annual Report of the Commissioner of National Parks for the fiscal year 1933-34. Many requests for educational and descriptive material were received from tourist agencies, travel companies, boards of trade, automobile associations, and other similar organizations, to meet which a total distribution was made of 129,942 copies of official publications. In addition, approximately 6,500 copies of maps and pamphlets issued by private enterprise were distributed.

Continuing the policy adopted two years ago, of employing music as a publicity medium, additional selections were written in the Publicity division for distribution to bands and orchestras in Canada, the United States, and Great Britain. Since their inception, these musical numbers, founded on the outstanding and distinctive features of Canada's National Parks, have been accepted by more than fifty musical organizations. Additions to the repertoire during the past year follow: *In Nature's Cathedral* (typifying the impressive quietude of the Rocky Mountain region) and *Lake Amethyst Minuet*. Several other compositions are in course of preparation.

In August, 1934, the National Parks Service organized a publicity exhibit at the Canadian National Exhibition, Toronto. This exhibit, which occupied 2,904 feet of floor space, included mounted specimens of wild mammal and bird life indigenous to the National Parks; mounted buffalo heads; coloured photographic transparencies arranged in a specially constructed case, electrically lighted; framed photographs, sketches and paintings in oil of National Park scenes. The entire exhibit was staged in an artistically designed enclosure. For the duration of the exhibition officers of the Publicity division were in constant attendance, and numerous inquiries were received from prospective National Park visitors, and others interested in Canada's flora and fauna.

During the past year additional publicity material was secured, including two small mounted specimens of wild animal life, 20 well-mounted bird specimens, 4 oil paintings, 24 posters and 24 sketches in oil, besides two large transparency cases constructed in sectional units.

The services of Grey Owl, Indian naturalist and writer, have been retained by the National Park Service since 1931. Through his work in the conservation of beaver, a number of which he has partially tamed, Grey Owl has assisted in filming several remarkable motion pictures of this interesting species at work and play. These pictures have been re-edited for sound production and released on theatrical circuits where they have met with outstanding success.

TOURIST DIVISION

The general tourist promotional activities of the Tourist Division were taken over in February, 1935, by the Canadian Travel Bureau of the Department of Railways and Canals. The Tourist Division was distinct and apart from the National Parks Publicity Division which, of course, continues to function energetically in regard to Parks' tourist activities. The National Parks attractions dominate the tourist traffic of the West, and the Parks' Service and the Travel Bureau co-operate on lines that are mutually beneficial. Nothing is more valuable in regard to tourist traffic than good maps. For years the Topographical and Air Survey Bureau of the Department of the Interior has been issuing maps of this kind. It is continuing the work for both the Travel Bureau and the Parks Service.

The work which the Tourist Division had been carrying on and which has now been absorbed by the Travel Bureau, had as a fundamental the building up of an inventory of Canada's recreational attractions as a whole, and the distribution of this information as widely and effectively as possible. It also aimed at the co-ordination of the work of provincial and other agencies in this

field and the exploration of lines of expansion which would be most likely to divert more tourists to Canada. In these various undertakings, considerable progress was made during the year. Close co-operation was maintained with organizations such as travel bureaus, chambers of commerce, hotels, banks, libraries, and automobile organizations throughout the United States, and also with provincial and local tourist bureaus and the tourist departments of railway, steamship, and other transportation companies in Canada. The distribution of highway maps and travel publications in the United States and abroad numbered many thousands.

A distinctive feature of the division's tourist promotional work was the preparation and careful placement of seasonal press articles descriptive of the many phases of Canada's recreational attractions. More than 650 newspapers,



Kaufmann Peak and Mount Sarbach from Waterfowl Lake—Banff-Jasper Highway
(Lake Louise End)

magazines, and periodicals in Canada and the United States accepted and re-produced these articles which were supplied in the form of mats, electros, or stereos. The article *Hunting in Canada*, released shortly before and also during the hunting season, brought hundreds of requests for information concerning Canada's game areas. Other similar articles which stressed Canada's holiday facilities included *Eastern Canada*, *Western Canada*, *Central Canada*, *Scenic Canada*, *Sport Fishing in Canada*, *Winter in Canada*, and *With Canoe and Paddle on Canada's Waterways*.

Through established contact with licensed guides and outfitters in practically all hunting and fishing districts throughout Canada, the division was in a position to furnish inquirers with up-to-date information concerning the reported abundance or scarcity of game animals and game fish. It was necessary to reprint 10,000 copies each of the booklets, *Canada's Game Fields* and *Sport Fishing in Canada* to take care of the many requests from sportsmen's clubs and individual inquirers. In cases where detailed information was re-

quested, inquirers were fully advised by letter or mimeographed reports. The division prepared a summary of the hunting and angling regulations of each province of the Dominion, as well as mimeographed memoranda covering the sport attractions of a number of districts. A representative of a sportsmen's association in Austria personally was furnished with extensive data on hunting in Canada for the benefit of a party of big game hunters he was bringing to this country.

There was a great demand for information regarding canoe routes, the number of requests in this connection exceeding those of the previous fiscal year, and in every instance inquirers were supplied with detailed descriptions and blue-prints of the particular routes desired. Where general information only was sought, the booklet *Canoe Trips in Canada* was furnished. The demand for this booklet was such that a reprint of 10,000 copies was necessary. Aside from individual requests, the booklet was supplied principally to libraries, outdoor sports organizations, travel bureaus, and other associations interested in this phase of recreation.

A new edition was published of the pamphlet *How to Enter Canada*, which contains a summary of the regulations regarding entry into Canada. It was necessary to print 100,000 copies of this publication to meet the demand of automobile clubs, travel bureaus, and other organizations in the United States.

The average annual distribution of 110,000 tourist inquiry cards was maintained. This card is designed specially for the convenience of prospective tourists in making application for detailed information concerning motoring, hunting, fishing, canoeing, and other phases of Canada's recreational facilities.

Careful and systematic contact was maintained with officials of organizations holding international conventions in Canada and near-border points in the United States. Specially prepared articles on Canada's scenic and sporting attractions, highway systems, and other subjects of interest to prospective tourists, with suitable illustrations, were furnished for insertion in the official publications of the associations conducting the convention. This special feature of the division's work resulted in a considerable increase in requests for descriptive material from tourists, many of whom intimated that they intended making an extended trip in Canadian territory.

A large number of prepared lectures, and coloured lantern slides, were loaned to universities, colleges, schools, libraries, clubs, and individuals in various parts of Canada and the United States. Photographic prints supplied to writers, publishers, and to tourist and news agencies for reproduction numbered many thousands. Pictorial exhibits in the form of selective groups of photographs were supplied to a number of automobile clubs, travel bureaus, and hotels having ground floor frontage for such displays. Numerous letters of appreciation were received, also many requests for further material along similar lines. Other activities carried on by the division included a follow-up campaign with applicants previously supplied with recreational information; the preparation of articles for radio broadcast; the preparation of special tourist articles at the request of magazines, newspapers, and periodicals, and the redrafting of a new series of automobile road maps indicating the main connecting highways between Canada and the United States.

During the period under review tourist maps, booklets, and folders were widely distributed. Approximately 120,000 copies of the automobile road maps, and 175,000 copies of tourist booklets were forwarded to various travel organizations throughout Canada, the United States, and other countries. About 18,000 copies each of the publications *Canada's Game Fields*, *Sport Fishing in Canada*, and *Canoe Trips in Canada* were distributed among sportsmen's organizations, travel bureaus, and individual inquirers.

During the ten-month period ended January 31, 1935, the division received approximately 12,750 inquiries for particulars relative to touring in Canada.

The information specially desired was concerned principally with motor routes, hunting and fishing districts, canoe routes, camping areas, lake and seaside resorts, and to a lesser extent, with golf courses, hotel and campsite accommodation, hiking trips, and health resorts. There was a greater demand for information respecting motor and water routes leading to Hudson bay and James bay and to Yukon Territory, than during any previous season.

REVENUE

Receipts from public utilities and other sources of direct revenue in the National Parks of Canada, including Migratory Birds Convention Act, amounted to \$219,737.33 for the fiscal year 1934-35, compared with \$201,051.12 for the preceding twelve months, an increase of \$18,686.21, or 9.29 per cent. The increase in revenue was general throughout practically all parks, being greatest, however, in Riding Mountain National Park, with a growth in revenue of \$9,146.06, compared with figures for the fiscal year 1933-34.

BANFF NATIONAL PARK

Tourist returns for Banff National Park during the fiscal year 1934-35 reflect a gratifying upward trend and it is apparent the decline in travel noticeable since 1930 has been arrested. Proof of this improvement is indicated by the very substantial increase in motor traffic through the park during the period under review, the increase in visitors numbering 10,510, or 7.94 per cent.

Banff, Kootenay and Yoho Parks, which are linked by standard Park highways, constitute what is known as "The Three-Park Unit" and in the table reproduced below figures are given showing motor travel through Banff National Park westward and eastward, respectively, during the year, compared with that of the corresponding period last year (1933-34):—

VISITORS TO BANFF NATIONAL PARK

Route	Motor Vehicles		Passengers	
	1934-35	1933-34	1934-35	1933-34
WESTBOUND				
Via East Gate (Banff National Park).....	32,752	30,694	106,944	100,649
EASTBOUND				
Via Radium Hot Springs (Kootenay Park).....	4,728	3,969	15,334	12,857
Via Leachcoil (Yoho Park).....	1,606	1,405	4,496	3,758
Tourists for Banff by rail—East and West (estimated)			16,000	15,000
Totals.....	39,086	36,068	142,774	132,264

In the following paragraphs the various activities of the park are briefly reviewed:—

Information Bureau.—For registration purposes the tourist season opened officially on May 16, and closed September 30, 1934, and during that period a total of 16,120 inquiries of all descriptions was dealt with, compared with 13,197 for the corresponding period in 1933, an increase of 2,923 or slightly more than 22 per cent.

Public Health.—Very few cases of sickness occurred at Banff during the year. Every precaution was taken to ensure healthy living conditions and all sanitary ordinances were strictly enforced. Laboratory tests were made periodically of milk and water, and dairy herds, numbering 197 head, were given the tuberculin test and found to be healthy.

Campgrounds.—The great activity at the various public campgrounds during the summer months indicates the importance of this accommodation from a recreational standpoint. A total of 18,569 campers in 5,173 motor cars was registered between May and October.

The average stay in camp amounted to slightly more than two days per person, or a total of 38,106 person-days for the season. At Tunnel Mountain campground, the largest of the six sites devoted to this purpose, a number of open air lectures, illustrated by lantern slides, were given by qualified speakers on various topics for the entertainment of the campers.

Bathhouses.—During the fiscal year 33,093 persons passed through the turnstile at the Cave and Basin bathhouse compared with 34,454 for the corresponding period last year, a decrease of 1,361. The total number of visitors who signed the register at the Cave and Basin bathhouse was 49,645. During



Mount Rundle and Vermilion Lakes—Lake Louise Highway. Banff National Park

the same period 47,581 persons passed through the turnstile at the Upper Hot Springs bathhouse compared with 44,570 for the preceding year, an increase of 3,011. The water for these baths is supplied from naturally heated mineral springs and its purity is ensured by a circulatory system.

Licences and Permits.—A total of 14,696 licences and permits was issued during the fiscal year 1934-35, as follows: Licences—Transient automobile (with camping privileges) 13,236; permanent Park resident automobile, 325; chauffeur, 175; hotel and boarding house, 163; trucking, 127; dog, 101; auto livery, 88; business, 60; miscellaneous, 332. Permits—Camping, 77; grazing, 12. Fifteen building permits also were issued for an estimated property value of \$31,250, which includes the Banff and Lake Louise auto bungalow camps.

Mosquito Control.—Effective mosquito control work was continued during the spring and summer. The system followed has consisted of frequent applica-

tions of oil in marsh areas, in which connection a total of 3,891 gallons was distributed, and the construction of drainage ditches and dykes.

Roads and Bridges.—Work on ordinary Parks account was limited during the year to general upkeep and repair of about 150 miles of standard highway. In addition, approximately 12 miles of streets in the town of Banff were maintained. A total of 167,223 gallons of road oil was distributed during the season. Road work as a measure of unemployment relief and with funds provided under the Public Works Construction Act, 1934, is detailed elsewhere in this report.

Trails.—General maintenance work was carried out on the following trails: Bryant Creek, Palliser, Brewster Creek, Cascade River, Panther River, Mistaya River, Glacier Lake, Howse River, Johnston Canyon, and Spray River. There are 670.5 miles of trail and 23 miles of fire road in the park.

Forest Telephones.—The Park forest telephone system comprises 215½ miles, all of which was patrolled and maintained. In addition, the line was rebuilt during the season from Bankhead to Panther river, and from Bow pass to Saskatchewan river.

Forest Fires.—One railway fire and sixteen general forest fires occurred during the year, covering an area of approximately 318 acres. The severest fire was one which broke out on Brewster creek, and burned for nineteen days, destroying timber on an area of approximately 300 acres. A crew of sixty-four men was employed in the suppression of this fire.

Banff Museum.—Visitors who registered at the museum numbered 17,556. Grateful acknowledgment is made of the donation by Mr. L. P. Rundle Woolcock of West Moors, Dorset, England, of the Cree bible presented by the British and Foreign Bible Society to his great grand-uncle, the late Reverend R. T. Rundle. Rev. Mr. Rundle was the first white man, of whom there is any record, to visit the present site of Banff (1841).

Banff Zoo.—The zoo again was popular with tourists. Specimens of the following animals were added to the zoo during the year: 1 mountain lion, 1 golden eagle, 2 black bear, 1 timber wolf, 2 mink, 1 marmot. At the close of the fiscal year the following animals were on exhibition in the zoo: 1 polar bear, 2 grizzly bear, 2 black bear, 1 cinnamon bear, 1 Canada lynx, 5 timber wolf, 4 coyote, 1 badger, 3 marten, 2 gopher, 3 porcupine, 2 muskrat, 1 ermine, 2 marmot, 1 mountain lion, 4 mink; and the following birds: 12 Canada goose, 2 golden eagle, 2 crow, 3 great-horned owl.

Animal Paddocks.—Animals on exhibition in the paddocks at March 31, 1935, were as follows: 29 buffalo, 28 elk, 5 Rocky Mountain sheep (bighorn), 1 Rocky Mountain goat, 6 four-horned sheep, 7 yak.

Donations of Wild Life.—The following animals were captured during the year and donated as indicated: a pair of Rocky Mountain sheep to Salt Lake City Zoological Society, Salt Lake City, Utah, U.S.A.; one mule deer to Calgary Zoological Society, Calgary, Alberta.

Game.—From the reports of Park wardens and other observers, there is ground for the belief that game animals indigenous to the Rocky Mountains region are responding satisfactorily to sanctuary conditions. The loss of valuable game life through the depredations of cougars, coyotes, and other predators, which also tend to increase correspondingly, has necessitated remedial action to control the menace, without, on the other hand, disturbance of the natural balance in numbers between the two branches of wild life concerned. Indications point to the fact that from the standpoint of game conservation the margin of safety has been maintained in respect to the non-predatory species. During the year the warden staff destroyed 35 coyote and 1 mountain lion.

Fish Culture.—The re-stocking of barren or depleted Park waters was continued. Through the efforts of the National Parks Service fishing in Park waters had greatly improved and as the work progresses, angling will undoubtedly become one of the chief attractions of these areas.

During the period under review fish fry was distributed from the Banff Hatchery as follows:—

In Park waters: salmon trout, 93,654; cutthroat trout, 616,000; speckled trout, 231,433; total, 941,087.

In Provincial waters: speckled trout, 91,000; brown trout, 473,200; cutthroat trout, 400,425; rainbow trout, 449,340; total, 1,413,965.

The grand total of fish fry distributed was 2,355,052.



Ski-ing at Lake Louise—Mount Lefroy in background. Banff National Park

Sports and Pastimes.—Banff has shown steady development in recent years as a winter resort. People from all parts of the continent, and from countries overseas, have visited Banff and the ski camps located in the park. The younger people of Banff also have taken up this winter sport with enthusiasm, and several outstanding ski runners and jumpers have been developed. In April, 1934, a team of Banff young men, representing the Ski Club of the Canadian Rockies, took part in the ski events at Seattle, Washington, U.S.A., and gave a most creditable account of themselves, one member of the team winning both the slalom and downhill races.

At the Skoki Valley Ski Camp, twelve miles north of Lake Louise, a downhill ski competition was held on April 21, 1934, for "The Lady Rankin Downhill Cup." The route selected was a steep snow couloir starting almost at the summit of Fossil peak (9,665) and terminating just above the Skoki Ski Lodge (7,000). This route offered a real test of downhill ski-ing ability, and as the entire race could be observed from the Lodge, it afforded both thrills and entertainment for the many spectators present on the occasion.

At the Mount Norquay Ski Camp near Banff there was great activity during the winter. The inauguration of a regular motor bus service between Calgary and Banff has given a remarkable stimulus to winter sports in the park. Moreover, the completion of the Stoney Squaw road to within a few minutes walking distance of the camp, and the construction there of a small parking area, has been greatly appreciated by skiers and motorists generally.

The bungalow camp at Mount Assiniboine is being operated, in summer, as a recreation resort and, in winter, as a ski camp. About thirty members of the Skyline Hikers of the Canadian Rockies, an organization formed in August, 1933, made a four-day hike, August 10-13, inclusive. The route followed on this occasion was that from Emerald Lake chalet to Yoho Valley bungalow camp, thence to Twin falls and Yoho glacier, and the return to camp via Little Yoho valley and the glaciers of mounts President and Whaleback.

The Indian Days Celebration was held in Banff on August 17-19. The customary parade of Indian Chiefs was held each morning and proved a great attraction to the many visitors present. Sports were held each afternoon on the racetrack at the Animal Paddock and all events were keenly contested by the Indians. Concerts, featuring Indian tribal dances and songs, were held each evening in front of the grandstand at the recreation grounds of the Banff Springs Hotel in the presence of large audiences.

Two popular annual events held during the winter were the Curling Bonspiel and the Winter Carnival, the former commencing February 11 and continuing throughout the week and the latter being held February 13-16.

Meteorology.—Daily readings of temperature, precipitation, and wind velocity were taken at Banff during the year, and it is of interest to note from the records, which extend over a period of many years, that the days on which outdoor sports could not be participated in were extremely few.

Alpine Club of Canada.—The activities of the Alpine Club of Canada are reviewed in the Appendix to this report.

YOH0 NATIONAL PARK

The fiscal year just closed reveals evidence of steady improvement in tourist travel to Yoho National Park. Eastbound traffic entering the park at Leancoil gate comprised 2,409 motor vehicles carrying 6,744 passengers, compared with 2,108 motor vehicles carrying 5,636 passengers for the corresponding period in 1933-34, an increase of 1,108 passengers. Westbound traffic passing out of the park at Leancoil gate comprised 3,523 motor vehicles carrying 10,268 passengers, compared with 3,136 motor vehicles carrying 8,052 passengers for the corresponding period in 1933-34, an increase of 2,216 passengers. However, Yoho National Park as a member of "The Three-Park Unit" Banff, Yoho and Kootenay Parks, has not, heretofore, received credit for the large numbers of tourists entering the park from Banff National Park at the "Great Divide". It has not been found expedient to maintain a registration office, with its attendant costs, at this point of entry, but the Superintendent of Yoho National Park during the year installed an automatic registration device by means of which he has definitely established that 9,491 motor vehicles entered the park at this point. Whereas only 3,523 westbound motor vehicles registered at Leancoil, it may be assumed for the purpose of these records that the remainder of this traffic, numbering 5,968 motor vehicles, after visiting points in Yoho National Park, returned east again. Basing the passenger carrying capacity of these cars at the ratio for through westbound traffic (2.9 persons per car) Yoho National Park may be credited with an additional 17,307 tourists, making a total of 11,900 motor vehicles carrying 34,319 passengers for the year 1934-35.

Campgrounds.—A record of visitors at the various campgrounds in Yoho National Park was kept under the new system of registration and the following return indicates the number of cars and persons accommodated during the season: Kicking Horse campgrounds, 1,096 motor vehicles and 3,514 campers; Field campgrounds, 39 motor vehicles and 122 passengers; Chancellor Peak campgrounds, 66 motor vehicles and 174 passengers; a total of 1,201 motor vehicles and 3,810 campers.



Mount Field from the Kicking Horse Trail
Yoho National Park

Roads and Bridges.—The work of repairing Park roads for the tourist season commenced early in May under regular Parks appropriation. A considerable amount of resurfacing was done on the Yoho road but the main work was widening it. This involved, in many places, considerable blasting as all the extra width to be gained had to be excavated from solid rock, notably at the "Switch-back" and at the first canyon. Good progress was made, and at all points where widening was undertaken the full standard width of 24 feet was obtained. At the road's terminus, which is at the foot of the beautiful Takakkaw falls, a circular turn was constructed, and additional parking space provided for the use of the increasingly large numbers of visitors to this area. Maintenance was also carried out on the Emerald Lake road and Ottertail road.

The Kicking Horse Trail, main Park highway, was maintained in first-class condition throughout the season. This road, which has a length of 32½ miles,

extends from the interprovincial boundary (Great Divide) to the west boundary of the park, a short distance beyond Leancoil, the main entrance to the park. Many improvements were made on this road in the way of widening and elimination of curves. This highway enters Yoho National Park through the Kicking Horse pass at the Great Divide (5,339 feet), the interprovincial boundary between Alberta and British Columbia. For the purpose of drawing attention to the significance of this unique spot an attractive arch was constructed during the year, spanning the highway where it bridges Divide creek.

Park Trails.—The trail around Emerald lake, a popular walk with visitors, was improved and several small trail bridges renewed. Other trails upon which repair work was undertaken, included Yoho Glacier, Summit Lake, Burgess Pass, upper and lower Twin Falls, Lake O'Hara, Amiskwi, and Ottertail. A new bridge with concrete piers was constructed over Twin Falls creek, and a commencement was made on the relocation of Sherbrooke Lake trail to avoid a steep grade on the first mile and a half of this route.

Fire Control.—Notwithstanding a somewhat hazardous season, there were no serious forest fires. Two fires occurred in the Emerald Lake district, but owing to prompt action by the Park fire-fighting organization, the outbreaks were suppressed before serious damage resulted. Both these fires were due to the carelessness of smokers in dropping unextinguished cigarettes in the bush alongside the trail. No railway fires, caused by locomotives, were reported during the period under review.

Fish Culture.—The policy of re-stocking Park waters with fish fry was continued, and rainbow trout fry from Banff Fish Hatchery were distributed as follows: Cataract creek, 20,000; Emerald lake, 15,000; Kendall creek, 5,000; lake O'Hara, 20,000; Sherbrooke lake, 16,000; Wapta lake, 15,000; total, 91,000 fish fry. The result of these plantings has been very satisfactory. The fish are doing well and as a result of previous development work in this direction many good catches were reported during the season.

Game.—Wild life in Yoho Park is plentiful. Game animals frequenting the park in increasing numbers are moose and Rocky Mountain goat, and, to a lesser degree, deer. In recent years elk have made their appearance in Yoho Park and their numbers indicate a slight increase. Black bear also were numerous. With regard to predatory animals, there was very little evidence of cougar. Lynx and wolverine were scarce, and indications point to a decrease of coyote. The situation as to control of these animals was well in hand. Fur-bearing animals were not abundant. Beaver were seen in the park in limited numbers. Marten were fairly plentiful but mink were scarce.

KOOTENAY NATIONAL PARK

During the year the Park had a gratifying increase in tourist travel, with a total of 44,747 visitors compared with 32,798 for the corresponding period in 1933-34, an increase of 11,949 or 36.43 per cent. It should be stated, however, that something of a departure has been made this year from previous usage in the calculation of motor travel in Kootenay Park which, as a member of "The Three-Park Unit" has heretofore been given no credit for motorists entering the park by highway at Vermilion pass, and who returned east again without registering at Radium Hot Springs. Since it has not been found expedient to maintain a registration office at this point of entry, Kootenay National Park has been credited with five per cent of westbound motor traffic through Banff National Park, the figures for which park appear in the Banff Park section of this report. The number of tourists registering at Radium Hot Springs during the year was

as follows: eastbound, 6,304 motor vehicles carrying 20,494 passengers, and westbound, 5,852 motor vehicles carrying 18,906 passengers, to which has been added, according to the computation previously outlined, 1,638 motor vehicles carrying 5,347 passengers, making a total of 13,794 motor vehicles carrying 44,747 passengers.

Persons to the number of 18,095 entered the bathhouse and swimming pool during the year, compared with 17,217 for the corresponding period in 1933-34, an increase of 878 or 5 per cent. Accommodation at the bathhouse was increased during the preceding winter by certain additions and alterations which will add greatly to the facilities of this popular resort.



Automobile Campground, Radium Hot Springs. Kootenay National Park.

Campgrounds.—Public campgrounds throughout the park were popular with tourists during the year. At Sinclair canyon 1,349 motor vehicles carried 4,708 persons, who were accommodated. A number of improvements were made at the campground, including a caretaker's cabin and community shelter for the use of campers.

Park Development.—The Banff-Windermere highway was improved by the reduction of steep grades and curves, and by the building of new bridges. Trails were maintained in good condition and a new trail was constructed over the mountain-side from the swimming pool at Radium Hot Springs to the canyon, a distance of approximately two miles. Although it was completed late in the season, a large number of people took advantage of this trail to view the remarkable scenery along it. A new bridge was built over Vermilion river on the Floe Lake trail, which is one of the beauty spots of the park.

Fire Control.—Although very dry weather was experienced in August and September, the fire situation never got out of control. A number of fires occurred, but in all cases they were detected promptly by the wardens and extinguished before damage of any consequence was done to the forests.

Game.—Early and plentiful precipitation made for excellent forage conditions and game animals came through the winter in excellent condition in consequence. Moose and elk are reported to be increasing, but white-tail deer were scarce during the year, a fact attributed to their migratory habits.

Recreation.—The Trail Riders of the Canadian Rockies held their annual ride in August from Leachcoil over Wolverine pass to Marble canyon. Many members of the association in Canada and from the United States participated in the event, which proved a most enjoyable one, the excellent condition of the trails along the route being an important factor.

JASPER NATIONAL PARK

Although returns for the fiscal year 1934-35 show a slight decrease in the number of visitors to Jasper National Park a gratifying feature of the year's figures was the increase in the number of visitors from the United States. The number of Canadian visitors may be expected to increase on completion of the Edmonton-Jasper Highway and of the Banff-Jasper Highway now under construction. The latter road will link this park with "The Three-Park Unit" comprising Banff, Kootenay, and Yoho National Parks, and offer motorists a scenic route of unrivalled mountain magnificence. At present there is a preponderance of numbers favoring rail travel as is shown by the following figures for the year under review: rail, 7,851, compared with 10,300 for the corresponding period last year; road, 2,906, as against 3,189 for the preceding year, a total of 10,757 for 1934-35, compared with a total of 13,489 for 1933-34. The increase in United States motor tourists amounted to 90 per cent, which is regarded as giving cause for satisfaction under existing conditions of travel to the park.

The town of Jasper, headquarters of the park, was maintained in excellent condition throughout the year, and particular attention was paid to streets and boulevards. The streets were treated with road oil, the boulevards were kept in good order and the tree-planting policy was continued. The town sewer system was improved, and a number of new connections were made. The permanent water system was improved and twenty-three additional connections were made during the year, making a total of 294 premises serviced.

The Department operates its own distributing system for electricity for street and domestic use. This system was maintained in good working order throughout the year and service connections for domestic, business and government purposes numbered 343.

Licences and Permits.—There was an increase in the issue of licences and permits of 15, with a total of 1,564 during the fiscal year 1934-35, compared with 1,549 for the corresponding period last year. These included 703 transient automobile licences, 262 park resident yearly automobile licences, 94 chauffeur licences, 60 shop licences, 78 camping permits, 73 timber permits, and 294 miscellaneous licences and permits.

Roads and Bridges.—Park highways were maintained in first-class condition throughout the tourist season. New construction consisted of approximately 13 miles of standard all-weather road. The Astoria River bridge, construction of which was commenced in 1933, was completed and painted. A new bridge also was constructed over Portal creek. Other roads maintained, or upon which improvements were effected, included Medicine Lake road, Pyramid Lake road, and Edith Cavell road. All standard roads were treated with road oil in season. The Maligne Canyon road, a portion of which was surfaced with McMurray bituminous sand some years ago, has stood up well under heavy traffic conditions and, with minor repairs, is still in excellent shape. About twelve hundred square

yards of the surface of this road between the Athabaska approach bridges was paved with liquid asphalt, mixed with gravel, and rolled. This has provided a hard, dustless surface and has given excellent results. Other important improvements consisted of reduction of grade and elimination of curves.

Campgrounds.—For the first time statistics were kept of the number of persons occupying the campgrounds during the tourist season. Figures have been compiled for the three principal campsites, as follows: Cottonwood Creek: 236 motor vehicles and 827 campers; Miette Hot Springs: 103 motor vehicles and 528 campers; Medicine Lake: 68 motor vehicles and 212 campers; total, 407 motor vehicles and 1,567 campers. The total number of person-days was 9,693 and the average stay of persons in the various camps was slightly more than six days.



Pyramid Mountain from Golf Course. Jasper National Park

Improvements were effected at the campgrounds during the year as follows: Cottonwood Creek campsite: two standard kitchens were built, making a total of four. The domestic water supply pipe was extended. A camp attendant was employed to supervise the camp and keep a record of the number of visitors. A considerable amount of development work was carried out at Patricia Lake campsite during the season, particularly after August 1, 1934, under the Public Works Construction Act, 1934, details of which will be found in another section of this report.

In anticipation of the early completion of the Miette Hot Springs road and of the new bathhouse and swimming pool at the Hot Springs, work is proceeding on the clearing of a suitable site for campgrounds a short distance from the Springs.

Park Trails.—A trail for hikers was constructed up the Astoria valley from View Point near Mile 17 on the Edith Cavell road to Chrome lake, a distance

of about eleven miles, the route used during the year by members of the Alpine Club of Canada at their summer camp on Eremite creek. The trail system of the park is made up as follows: standard trail, 367 miles; secondary trail, 156 miles; Indian trail, 167 miles; total, 690 miles.

Forest Telephone System.—Maintenance of communication between the Park headquarters and the wardens is of the utmost importance in carrying on the work of game protection and in fire preventive measures. The Jasper system comprises a total of 342 miles of telephone line, all of which was patrolled and maintained throughout during the year.

Wardens' Cabins.—Cabins are provided for the use of the wardens in the execution of their field duties. There are thirty-two such cabins in Jasper National Park and these are maintained for the most part by the wardens themselves, with such assistance as may be required from time to time.

Fire Control.—No serious forest fires occurred within the park during the season. Generally speaking, the travelling public has come to a realization of the importance of care by smokers, and in extinguishing campfires; and this fact, coupled with favourable weather conditions, prevented any serious outbreaks.



Amethyst Lake and the Ramparts. Jasper National Park

Game.—The increase in game animals was normal during the year. An abundance of vegetation, with a plentiful rainfall, had a marked effect on all species of game, deer particularly having responded to these favourable conditions.

Practically all animals indigenous to the Rocky Mountains region occur in the park in increasing numbers, including moose, elk, caribou, deer, bighorn sheep and Rocky Mountain goat, also grizzly and black bear. Of the small furbearing animals, beaver and marten are plentiful, also otter to a lesser degree.

Fish Culture.—The policy of re-stocking Park waters was continued and at the Jasper Fish Hatchery, fish fry were distributed during the season as follows:

In Park waters: rainbow trout, 183,000; cutthroat trout, 178,000; Kamloops trout, 95,646, total, 456,646.

In Provincial waters: rainbow trout, 120,000.

Total distribution of fish fry during the 1934 season, 576,646.

Some excellent fishing was had and increasing numbers took advantage of the facilities for which Jasper Park is justly famous. Fish to the number of 7,316 were caught during the summer, compared with 4,809 for the corresponding period in 1933, the average weight of the fish being well over a pound each.

Recreation.—The facilities for recreation in Jasper National Park are manifold. In addition to excellent fishing, many forms of recreation are available: in summer, golfing, tennis, riding, hiking, and swimming; and in winter, ski-ing, skating, and curling. Ski-ing particularly is increasing in popularity, and more territory is being covered each year by this means. The planting of food caches at strategic points has enabled the adventurous skier to extend the field of his activities, and provides the added thrill of ski travel in mountainous areas more or less remote from the ordinary itinerary of tourists.

WATERTON LAKES NATIONAL PARK

(Canadian Section, Waterton-Glacier International Peace Park)

There was a gratifying increase in the number of visitors registered during the fiscal year 1934-35 at Waterton Lakes National Park, with a total of 10,049 motor vehicles, carrying 36,765 passengers, compared with 8,998 motor vehicles and 32,844 passengers during the previous year, an increase in passenger traffic of 11.9 per cent. The increase of Canadian tourists was 2,764 or 9.7 per cent, and of United States tourists, 1,128, or 26 per cent.

Townsite of Waterton Park.—Streets were maintained and treated with road oil throughout the season. The rock retaining wall, commenced in 1933, was completed and pointed. This wall is designed to prevent erosion of the banks of the lake from wave action. The wharf, recently extended, and the newly constructed wharf shelter, were used to capacity by motor-boat operators. The number of motor-boats on the lake continues to increase every year. The construction of three new buildings was undertaken by property-holders, one of the structures being a new theatre. To meet the need of increased water pressure, a new 6-inch intake was installed and piping laid through Cameron Falls canyon.

Information Bureau.—Inquiries numbered 6,701, compared with 5,950 for the corresponding period in 1933. This service has been of great value to tourists and persons seeking information.

Campgrounds.—The campsite of Waterton Park was well patronized during the tourist season, motor vehicles registered numbering 438, and campers 2,231, for a total of 15,600 person days. The number of campers at Cameron Lake and Red Rock Canyon showed an appreciable increase over the previous year. Facilities were improved by the construction of camp kitchens and other conveniences.

Roads and Bridges.—Some thirty miles of Park roads were maintained during the year. Improvements were effected on the Pincher Creek entrance road in the way of straightening and widening, also grading and surfacing. Road oil was distributed when necessary. On the Akamina road some of the narrower stretches were widened, and two sharp curves reduced. A bridge was constructed on Pass Creek road near the Upper Pass Creek bridge and the grade at this point and near Red Rock Canyon was widened. This road is extremely popular with motorists, the views obtained from it being very fine.

Trails and Telephones.—All Park trails were maintained in good condition, and improvements were carried out on Bertha, Carthew, Hell Roaring, and Twin Lakes trails. The forest telephone system also was maintained.

Agricultural Activities.—Grazing permits for a total of 1,802 head of live-stock were issued during the year, an increase of 242 head compared with the preceding year. One hundred and five tons of hay were harvested, baled, and stored as fodder for Government horses, this crop representing an increase of thirty tons over the 1933 crop.



Headwaters of Waterton River, at junction of highways to Cardston and Pincher Creek, Waterton Lakes National Park

Fish Culture.—No fish eggs were collected locally during the year. A quantity of cutthroat trout eggs was purchased early in the season and the following distribution of fry made from the Waterton Fish Hatchery:

In Park waters: cutthroat trout, 121,630.

In Provincial waters: rainbow trout, 557,000; cutthroat trout, 270,000; total Provincial distribution, 827,000.

Combined total, 948,630 fish fry.

Fishing was popular as usual, and numerous good catches were reported. Waterton lake afforded some particularly good sport, the largest fish, a lake trout, caught during the season, weighing 28½ pounds. Good catches also were reported at Bertha, Alderson, Carthew, and Twin lakes, likewise from the Belly river.

Fire Control.—Only two small fires occurred during the year and fortunately the damage in each case was negligible.

Game.—The situation with regard to wild life appears to be satisfactory: wardens' reports indicating an increase in number of practically all species of

game animals indigenous to the region, including Rocky Mountain sheep and goat; elk, and mule deer. Bear, on the other hand, were seen in fewer numbers than in former years. Of the smaller fur-bearing species, beaver were numerous, mink and marten were plentiful, and rabbit also were very numerous. Lynx and wolf were scarce, but coyote were fairly plentiful. Game birds of the grouse genus were reported to be plentiful with evidence of some increase in the case of prairie chicken.

Recreation.—Golf and tennis, hiking and riding, swimming and boating—all these sports were participated in by tourists at Waterton Lakes National Park. Ski-ing as a winter sport also had increasing numbers of devotees. At the Park recreation grounds there is a children's playground equipped with a variety of devices for their enjoyment. There are four excellent tennis courts and an 18-hole golf course. On hot summer days lake Linnet is much frequented by bathers. For the convenience of visitors, dressing rooms have been provided. A boom of logs at the lower end of the lake afforded necessary protection for juveniles and non-swimmers, and the presence of a life-guard throughout the season gave added assurance of assistance, as and when required. Other forms of recreation include mountaineering.

Lake Soundings.—Through the courtesy of the United States Department of Fisheries, officials of which department made soundings of Waterton lake during the year, the following readings were obtained: international boundary, 405 feet; in Canadian waters, off Blacktail point, 396 feet; halfway between Blacktail point and Hell Roaring creek, 381 feet; north of and adjacent to Bertha creek, 360 feet, and midway between Bertha creek and campsite, 286 feet. All soundings were taken along, approximately, the centre line of the lake.

GLACIER NATIONAL PARK

As the administration does not maintain a resident Park Superintendent at Glacier National Park, or other facilities for recording visitors, there is no means of determining the number of people who visited the park during the year under review, but an estimate of not less than 1,000 can be accepted as a conservative figure for the period in question.

Park Improvements.—The principal work performed during the season consisted of maintenance of Park trails, those deserving particular attention including Mount Hermit, Grizzly Creek, Beaver River, Prairie Hills, and the roads to the Nakimu caves and the railway station. New construction included the erection of a 50-foot bridge over Grizzly creek on the Beaver River trail.

Game.—An abundance of native grasses, mosses and other vegetation on the numerous meadows forms an ideal summer range for all varieties of deer, more particularly mule deer and woodland caribou, which are plentiful in the park. The Selkirk range is the natural habitat of Rocky Mountain goat, which are increasing annually in numbers. In recent years a few moose have appeared in the Beaver River valley and elk have been reported in the Illecillewaet valley. Grizzly and black bear, although not numerous, have given indications of an increase in numbers. Fur-bearing animals, notably beaver, marten and mink, are plentiful. The Beaver River valley is particularly suitable for beaver, and provides this valuable fur-bearer with ample sanctuary and excellent breeding areas. The snowshoe rabbit, or varying hare, is reported to be on the increase and the same statement applies to grouse and partridge.

Predatory animals were few in number, those observed being coyote and wolverine. Wolf and cougar are almost unknown in the park.

Fire Control.—Glacier National Park was visited by one serious fire during August, which, in spite of the united efforts of a large force of men under the district warden, assisted by other wardens, burned over an area of 600 acres before it was brought under control.



Mount Sir Donald and the Illecillewaet River
Glacier National Park

MOUNT REVELSTOKE NATIONAL PARK

The park is visited annually by many tourists, but as there is no resident Park Superintendent it is difficult to compute their number. A fair computation of the number of visitors for the year places this at 6,000.

Park Improvement.—The work of maintaining and improving Mount Revelstoke road was carried on during the season. Clearing out of culverts and ditches, and repairing the roadway, formed the bulk of the work, which was completed in time for the opening of the tourist season. Trail improvement was limited to work on Clachnacudainn and Lindmark trails, and Two-mile Cabin fire trail. Other improvements included the construction of a new powder magazine, a concrete structure of approved design; repairs to cabins along the route of the mountain auto road, and painting of government buildings.

Campground.—Balsam Lake campsite was patronized extensively during July, August, and September, with the registration of 371 motor vehicles, carrying 1,362 passengers, about half of this number utilizing the facilities of the campgrounds during the month of August.

Fish Culture.—The policy of stocking Park waters was extended to Mount Revelstoke National Park during the year. The situation was investigated by the Superintendent of Banff Fish Hatchery, and under his personal supervision plantings of advanced cutthroat trout fry were carried out as follows: Eva lake, 8,000; Millar lake, 16,000.

Fire Control.—Although during the season there were periods when the fire hazard was very serious, with the outbreak of forest fires on territory in the vicinity, no fires occurred in the park.

Game.—The situation with regard to wild life was satisfactory, although there was no noticeable increase in the number of game animals. Deer and caribou frequently were seen during the summer. Grizzly and black bear were few in number. The smaller fur-bearers, and game birds also, were reported to be increasing, grouse in particular being plentiful. Predatory animals were not numerous in the park.

Recreation.—The popularity of Mount Revelstoke National Park as a ski-ing centre suffered no diminution during the winter season. The annual Carnival under the auspices of the Revelstoke Ski Club was held on February 19 and was an unqualified success. All events were well patronized, and attracted world-wide attention. Although no new records were established in the past year, Mount Revelstoke is still credited with a world's amateur record ski-jump of 287 feet, the performance of a local athlete in 1933.

PRINCE ALBERT NATIONAL PARK

During the period under review, tourists to Prince Albert National Park increased in number by 10 per cent, compared with the previous year, there being a registration of 6,187 motor vehicles carrying 21,108 passengers in 1934-35, as against 5,475 motor vehicles carrying 19,126 passengers in 1933-34, the increase being in cars of Canadian registry. Distinguished visitors included the Lieutenant-Governor of Saskatchewan, the Hon. H. E. Munroe, who visited the park several times during the year and remained for two or three weeks on each occasion.

The Saskatchewan Medical Association, represented by ninety delegates, convened on August 20, 1934, at the park for its annual meeting. Business was transacted at morning sessions, the delegates taking advantage during the remainder of the time of the facilities which the park affords for sports, including boating, fishing, and other forms of recreation.

Campgrounds.—Attendance at the various campgrounds was encouraging, and with improvements being made, it is confidently expected that increasing numbers will take advantage of the facilities for camping in the park. A total of 3,865 tourists was accommodated at the following campgrounds: Waskesiu Lake, 3,419; Kingsmere Lake, 121; Crean Lake, 325. Motor vehicles totalled 989 and the average stay in camp of each person was 6.8 days.

Licences and Permits.—Licences and permits to the number of 1,591 were issued during the year, as follows: Licences—business, 63; chauffeur, 16. Permits—building, 3; camping, 1,286; hay, 24; timber, 45; grazing, 3; miscellaneous licences and permits, 151.

Park Development.—All streets and lanes in the business subdivision of Waskesiu, the Park headquarters, were graded or otherwise improved, which has added materially to the appearance of the townsite. Completion of twenty-three miles of metallic circuit line between Meridian cabin and Waskesiu lake has improved telephonic communication with outside points. The construction, now under way, of staff residential quarters, and of a garage, will improve present

conditions in regard to accommodation. There also was constructed a new bandstand of pleasing design. With the completion of the first nine holes of the golf course, the construction of a golf club-house, ideally located on a site overlooking Waskesiu lake, was proceeded with, and practically completed during the autumn months. Other items of building construction authorized under the Public Works Construction Act, 1934, are reviewed elsewhere in this report.

Roads.—Maintenance and improvement of Prince Albert Park highway (36 miles), main thoroughfare to Waskesiu lake, and of the Narrows road (6 miles) were continued during the year. Construction of the Rabbit-Meridian road (13 miles) was carried to sub-grade completion and fifty per cent of it surfaced last year with funds provided under the Public Works Construction Act, 1934.



Sundown on Lake Waskesiu. Prince Albert National Park

Fishing and Fish Culture.—Angling is a popular sport in Prince Albert National Park and the administration, being mindful of the need for conservation and re-stocking, has had the co-operation of the Biological Board of Canada and the University of Saskatchewan since 1929. These investigations were continued in 1934. Salmon trout (*Cristivomer Namaycush*) fishing continued to show improvement. During the season a total of 878 was caught in Park waters, 448 from Crean lake, and 430 from Kingsmere lake, the fish taken averaging fifteen pounds each in weight. A concession to net whitefish, which were over abundant in Waskesiu lake, for sale in Prince Albert National Park was granted for the months of June, July, and August, 1934, under which there was caught a total of 2,422 fish weighing 6,110 pounds.

Fire Control.—Generally speaking, the fire hazard during the season of 1934 was not so severe as in the preceding year, although in the latter part of August and early in September the situation was not without gravity. Six fires were reported during this period. Two of these resulted from fires that originated outside the park and the remainder were caused by neglected camp-fires in the park.

With the co-operation of the Royal Canadian Air Force, spring and autumn air patrols were again a feature of the fire-preventive service. Flights were maintained at regular periods from May 26 to June 23, and again from August 15 to September 12. As in former years, these air patrols proved of great value to the park.

Game.—Protection of game in the park has occupied a great deal of attention in view of reports which indicate some increase in predatory animals throughout northern Saskatchewan, notably wolf and coyote. However, careful observations on the part of wardens in the course of their patrols have satisfied the Park Superintendent that predators are not over abundant in the park. Twenty-four coyote were destroyed during the year. A close check-up of the prevalence of wolf indicated that they were not numerous, four only having been seen in the period in question.

Bird life gave evidence of marked increase during the year, although this circumstance was not so noticeable among species of waterfowl.



Boating on Lake Waskesiu. Prince Albert National Park

Recreation.—The increasing popularity of Prince Albert National Park led to the engagement of the services of a sports director during the summer season. A girls' campfire club was formed, also a Boy Scout troop. Weekly hikes to points of interest were taken under the director's supervision, during which a feature was made of the study of the flora and fauna of the park. Instruction was given in methods of fire protection, and the children were made acquainted with the objects and aims of Canada's National Parks, and their heritage therein. Pageants also were held depicting outstanding events of Canadian history. Many other interesting and educative diversions were organized, including evening community assemblies, with music and singing.

The new Community building proved a most valuable addition to the recreational equipment of the park. Other facilities which will be ready for use next year, include a recreation ground, 500 feet square, and children's playground, 150 feet by 800 feet, in the centre of the campgrounds.

The annual regatta was held during the summer under the auspices of the Waskesiu Sports Association. The major event, the Waskesiu marathon, a three-mile swimming race, drew entries from all three Prairie Provinces, and was won by a competitor from Winnipeg in unusually fast time. The success of the 1934 regatta has inspired its organizers with the ambition to make this event a feature that will rank in years to come as one of the best in the province.

Another important sporting event held in the park was a tennis tournament on August 11, 1934. Competitors from every section of the province took part in the tournament, including all provincial champions, there being 173 entries in the open events and 59 in the novice classes. A special and interesting event was the children's feature, for which there was a large number of entries. Four new tennis courts were in constant play during the season, and, to cope with the demand, another four courts were under construction and will be ready for use next summer.

The chain of lakes and streams, so characteristic of Prince Albert National Park, affords unlimited scope for boating and canoeing, and a large number of visitors made a circuit of these waters via Hanging Heart Lake portage.

RIDING MOUNTAIN NATIONAL PARK

During the fiscal year Riding Mountain National Park established a new record for tourist travel, a circumstance of no little significance under present conditions and one which presages a bright future for the park as Manitoba's national playground. Registrations at the park entrance gateways during the tourist season, numbered 26,418 motor vehicles carrying 100,035 passengers, compared with 24,303 motor vehicles and 91,652 passengers for the corresponding period in 1933, an increase in the number of tourists of 8,383, or 9.14 per cent. The park was visited by a number of distinguished persons, including Lieut.-General Sir William Marshall, G.C.M.G., K.C.B., K.C.S.I., and Lady Marshall, of London, England; Brigadier W. G. Beeman, D.S.O., D.O.C., Military District No. 10, Winnipeg; Lieut.-Col. R. O. Alexander, D.S.O.; the Hon. John Bracken, Premier of Manitoba; the Hon. W. R. Clubb, Minister of Public Works of Manitoba; the Hon. W. J. Major, Attorney General of Manitoba; the Rev. C. W. Gordon (*Ralph Connor*); the Hon. J. L. Bowman, Speaker of the House of Commons; Col. H. A. Mullins, M.P., and many others. The Hon. Thomas G. Murphy, Minister of the Interior, also was a visitor to the park on several occasions.

The annual convention of the Manitoba Bar Association was held at Wasagaming, headquarters of the park, in the latter part of June. This was the first meeting of the association ever held outside the city of Winnipeg, and the attendance of members was the largest on record. Other organizations which met in Riding Mountain National Park during the year included the Order of Elks; Colonization Financial Corporation; Kiwanis and Rotary Service Clubs; Boys' Work Board of the United Church of Canada.

Information Bureau.—There was a gratifying increase in the number of inquiries dealt with through the park information bureau. This office was open for the season and during that time 12,049 inquiries were received, compared with 7,815 for the corresponding period in 1933.

Licences and Permits.—A total of 5,826 licences and permits was issued during the year, as follows: 147 business licences; 24 building permits; 1,855 camping permits; 311 hay permits; 174 grazing permits; 2,613 timber permits and 702 miscellaneous permits and other transactions.

Campgrounds.—The facilities for camping were greatly improved by an addition to the campgrounds of approximately 10 acres and by the construction of 9 additional shelters, equipped with stoves. Other public conveniences were provided, including another ice-house for the storage of perishable food supplies, these cold-storage facilities being much appreciated by campers in hot weather.

During the season the campgrounds were occupied for varying periods by a total of 6,988 individuals, representing 106,248 person-days, or an average of 15.2 days per person.

Townsite Development.—Development work was both extensive and permanent in character. The main road from the south entrance gateway, and Wasagaming drive in the business section of the townsite, were widened and a cement curb was laid on both sides of these thoroughfares between Hind and Columbine streets. All townsite streets were graded and the greater portion gravelled. Suitable wrought-iron posts, with name plates, were erected on all principal streets throughout the business and residential areas, while directional and mileage signs in the same style were placed at intersections. All the principal streets of the townsite were treated with road oil.



Clear Lake-Norgate Highway. Riding Mountain National Park

The work of landscaping the grounds in the townsite has been extended and has done much to enhance the naturally beautiful setting. New work was carried out at the east end of the Central Park area along the shore of Clear Lake in the vicinity of the Chalet and to the west of the Central Park area towards the new pavilion at the tennis courts. Pergolas and fences in rustic oak work and a timber and stone bandstand of rustic design were constructed in Central Park. At the request of the Brandon Horticultural Society a display of flowers from the park was arranged at the end of the season for the annual flower show of the society, and attracted widespread attention.

The increase of business licences indicates a revival in business and those who have established seasonal homes in the park did much to improve their properties and render them more attractive.

Government Buildings.—Construction was completed of two log cabins of standard design on the Norgate road near the eastern boundary of the park for the district warden and gatekeeper, respectively; also of one on the Dauphin

road near the northern boundary for the district warden. There also was constructed a suitably designed building of logs, with spacious veranda, for use as a tennis pavilion. The completion of another bathhouse, in cottage style with native stonework, has served to greatly improve facilities, both bathhouses being centrally located in relation to the main bathing beach and presenting a very pleasing appearance. At the golf course a small structure was erected as an office for the professional in charge. This building is of natural slab construction, with overhanging eaves for shelter.

Roads.—On the Norgate road, curves were reduced and the road-bed widened and resurfaced. Construction of the Dauphin road was continued, with approximately 14 miles of grading completed. The shore drive south of Clear lake from Wasagaming to the golf course was completed. A revision of the Lake Audy road from the golf course was carried out to Mile 4.5, with an extension to connect with the Norgate road. The entire length of this road was surfaced and oiled to its junction with the Norgate road.

Park Telephone System.—Work on the field telephone system was limited to maintenance. The Manitoba Telephone System, which provides long distance service to the townsite of Wasagaming, co-operated with the Park Superintendent in his aims at beautification by re-locating some of their lines along lanes at the rear of residences.

Fire Control.—Throughout May and during the first week in June, the fire hazard was high in the Riding Mountain area. By arrangement with the Royal Canadian Air Force, aerial patrols were carried out at intervals as an auxiliary to the ground forces and observations by this method were valuable in fire detection. A total of 19 fires occurred during the season, although, compared with former years, the damage was not serious, 12 of the fires being detected by the aerial patrol method. A total of 264.8 acres was burned over, including only about 16 acres of green timber. The damage was accordingly not serious and the total area which was burned over constitutes a low record since establishment of the park.

Wild Life.—Conditions were favourable for wild life during the winter of 1934-35. This was due to improved forage conditions and to the fact that the snowfall was light, and did not crust to any extent. Dry feed was provided for the animals at various points, although replenishment of supplies was not needed as often as during the previous winter. Moose have done well. Mule deer and white-tail deer frequent the park in considerable numbers. There were indications of an increase in the number of coyote, and considerable numbers of them were destroyed. No timber wolves have been seen in the park for several years. Fur-bearing animals of the smaller species are on the increase, particularly beaver and muskrat.

Several species of migratory birds sojourn in the park, including duck and swan. Many species of songbirds were reported. Meadow lark, commonly found on the prairies, were noticed in the park for the first time.

Exhibition Herds.—The number of animals in Lake Audy exhibition pasture at the close of the fiscal year was as follows: 42 buffalo; 4 moose; 5 white-tail deer; 4 mule deer, and approximately 38 elk. There has been no mortality among the buffalo since the nucleus of the herd was established in the park in 1931, and the natural increase during the past year was the greatest so far. To keep pace with the increase, the original pasture of 320 acres was enlarged in 1933 to 765 acres. Provision has been made to further enlarge the enclosure which, when completed, will provide the animals with a range in the neighbourhood of 2,000 acres in extent.

During the summer season, a total of 3,855 people viewed the animals in the pasture, at close quarters. Several additions were made during the year to the number of wild animals kept in captivity for exhibition purposes, including 2 moose, 4 mule deer, and 4 white-tail deer. Three of the latter were donated by the Parks board of the city of Winnipeg, and the fourth by Mr. James Moster of Shellmouth, Manitoba. Other specimens of wild life in the zoo include 2 raccoon, 3 porcupine, and 1 black bear.

Fish Culture.—Biological investigations have been carried on for several years to determine what species of game fish might to best advantage be introduced into Clear lake, and other related matters connected with the fish food supply. The inquiry was continued during the year.



North Shore of Clear Lake. Riding Mountain National Park

Recreation.—Swimming in Clear lake always has a great number of devotees. The improvements made at the main beach at Wasagaming include the construction of a 680-foot breakwater, which has made the beach safer for juveniles. Boating facilities also have been improved as a result of the breakwater. An additional excursion boat was in operation during the season, and a regular service was established between Wasagaming and the North Shore residential section, and also to the golf course. Two lifeguards were on duty at the main beach and emergency life-saving equipment was in readiness at all times.

The tennis courts are another popular feature. Six courts were in operation at the main townsite and two more in the residential section of Wasagaming. Two courts were also in operation on the North Shore sub-division. Two additional courts are now under construction at the main townsite, existing facilities being inadequate to meet the demand. During the season a tennis tournament was held under the auspices of the Wasagaming Board of Trade, in which some of the leading exponents of tennis in Manitoba participated, 143 entries being received. This feature promises to become an annual event.

The growing popularity of the government 18-hole golf course was in evidence, with a substantial increase in the number of participants of the game,

in which connection a total of 7,134 individuals paid green fees. The first annual golf tournament was held under the auspices of the newly-formed Wasagaming Golf Club on September 6-8, drawing an entry of 60 players. The recently completed second nine holes of the course were opened for play for the tournament and the Hon. Thomas G. Murphy, Minister of the Interior, presented a silver trophy in the form of a group of statuettes with "Victory" as the central figure, flanked by golfing figures. This trophy is for annual open competition by amateur golfers. Another trophy was presented by Mr. J. A. Smart, Acting Superintendent of Riding Mountain National Park, known as the "Buffalo Trophy," for annual competition by ladies on the Riding Mountain golf course. This trophy is a statuette of a buffalo emblematic of the Province of Manitoba and also the National Parks of Canada. A full program of events was carried out. Mr. Justice J. E. Adamson of the St. Charles Country Club, Winnipeg, and the Sandy Hook Golf Club, had the honour of being the first winner of the trophy presented by Hon. Thomas G. Murphy, Minister of the Interior, and Mrs. J. Russell Smith of the Regina Golf Club was the winner of the ladies' open championship, and the first holder of the "Buffalo Trophy."

BUFFALO NATIONAL PARK

A census of all species of wild animals in Buffalo National Park at the close of the fiscal year 1934-35, resulted as follows: 4,772 buffalo; 2,548 mule deer; 1,389 elk; 115 moose; 45 yak; 2 antelope; 27 hybrid livestock; 15 domestic cattle ("cattalo" experiment); a total of 8,913 head. The animals came through a winter of considerable severity remarkably well. Coyote were observed more frequently than formerly but do not appear to have constituted a menace to the herds. A total of 15 coyote was destroyed during the year.

Visitors.—There was a slight increase in the number of visitors to the park, with a total of 12,992 for the year, compared with 12,631 for the corresponding period in 1933-34.

Permits.—Permits for a total of 475 cords of dry wood, and 9,000 green willow pickets, were issued during the year to settlers in the vicinity of the park. The unfenced portion of the reserve along the valley of Battle river was leased again for grazing purposes.

Health of Animals.—Investigations of liver-fluke in buffalo, carried on in 1932 and 1933 under the direction of the Health of Animals Branch of the Dominion Department of Agriculture, were continued during May, 1934, by an investigator associated with the recently-formed Institute of Parasitology of McGill University, Macdonald College, P.Q., and progress reported. The general health of the animals was excellent.

Disposal of Animals.—Following a reconnaissance of pasture and range conditions, and having regard to the large number of animals to be provided for, it was deemed advisable to relieve congestion by the slaughter of one thousand head of buffalo. The operation was carried out accordingly during November and December when the animals were in good flesh and the fur prime. Choice quality buffalo meat is equal in all respects to a similar grade of domestic beef, and following the procedure adopted the previous year, all meat suitable for the fresh meat trade was taken over by the government for use in relief camps. Several carcasses also were reserved for Eskimo relief. In July, 600 green (untanned) salted buffalo hides were shipped to Churchill, Manitoba, and transported north by the annual Department of the Interior expedition, for distribution among the Eskimos.

Donation of Animals.—The following live-animal donations were made during the year: 2 pair of buffalo to the National Park, Spala, Poland; 3 yak to the Zoological Gardens, Toronto, Ontario.

A mounted specimen of mule deer was donated to the Royal Ontario Museum, Toronto, Ontario.

Two antelope, evidently migrants from their natural range in the southern portion of the Province of Alberta, were secured when found within the fenced area and placed in a separate enclosure in the park.

Park Services.—Two miles of graded roadway at the Wainwright entrance were surfaced, and approximately 55 miles of prairie trail maintained. Repair work was undertaken throughout the season in connection with the maintenance of approximately 120 miles of 8-foot and 10 miles of 4-foot fence, also 36 miles of telephone line. Repair work on the fence involved the replacement of 2,500 fourteen-foot posts, and the resetting of approximately 7,500 old posts. The park is protected by 140 miles of fireguard, in two 20-foot strips running parallel to and on opposite sides of the main fence, also cross-sectionally at intervals. This was ploughed during the season and the brush, which had grown up in places along the fence line on the strip of unploughed land between the two fireguards, cut, stacked and burned.



Herd of Wapiti (Elk)—Buffalo National Park

Only one small fire occurred in the park during the year, which was brought quickly under control. On another occasion the staff was called upon to assist settlers in extinguishing a stubble fire which threatened the park.

Bird Life.—Owing to the fact that many of the sloughs in the park have dried up in recent years, there has been a corresponding decline in the number of waterfowl, but reports indicate that Canada goose and duck were more plentiful last year throughout districts surrounding the park. Sharp-tailed grouse gave indication locally of being on the increase, while Hungarian partridge were quite numerous in season.

ELK ISLAND NATIONAL PARK

Tourists.—Figures for the fiscal year 1934-35 are most encouraging and constitute an all-time record for the park, as there was a total of 53,769 visitors compared with 47,478 for the corresponding period last year, an increase of

6,291 or 13·25 per cent. Apart from the attraction which the wild animals afford, visitors to the park are assured of excellent facilities for recreation. At Astotin lake there is an excellent beach for bathing and the resort, which has been equipped with bathhouses and other conveniences, including parking areas for motor vehicles, was well patronized. Other recreational features are the campgrounds and a picnic ground, also a recently constructed golf course of nine holes.

Park Development.—Main Park thoroughfares comprise the Sandy Beach road (8 miles) and the South Gate road (7 miles), construction work on the latter having been completed during the year. Both roads were surfaced throughout and the park now has an all-weather route direct to Edmonton.



Astotin Lake—Elk Island National Park

The main Park fences, of buffalo-proof construction, were repaired; fireguards around the entire park (51 square miles) also cross-sectional fireguards within the park, were ploughed. No damage occurred from fires during the year.

Camping facilities at Sandy Beach were improved, and included the subdivision of an area into 50 lots. Kitchen and other conveniences were installed. A total of 142 camping permits was issued during the season, compared with 25 for the previous year. The parking area was enlarged and improved; the construction of a new bathhouse provides ample accommodation for bathers.

while the Recreation building has added materially to the comfort and enjoyment of visitors. At the picnic grounds, twelve cooking stoves have been constructed, besides 100 tables, with benches. A number of rustic bridges were built from the mainland to islands in proximity to Sandy Beach.

Agriculture.—Four hundred tons of native hay were harvested. Fodder secured from cultivated land consisted of 13 loads of green feed.

Fish Culture.—On June 20, 1934, a consignment of 440 yellow perch (two-years and three-years old) was received from the Alberta Fisheries Service, and the fish deposited in Astotin lake as an experiment. The fish were netted in provincial waters and the operation of transplanting them was accomplished without loss.

Wild Life.—Crane island was again a favourite resort of blue heron which returned in large numbers during the nesting season. Waterfowl were numerous in season. There was an apparent increase of other birds, orioles, bluebirds, robins, goldfinches, song-sparrows and humming-birds being observed.

NEMISKAM NATIONAL PARK

During the twenty years that have intervened since Nemiskam National Park was established, the original band of 42 pronghorn antelope has increased to a herd of approximately 340 head. Grazing conditions during the year were unusually favourable, notwithstanding a spell of extremely hot weather in July and August, there being an abundance of good grass throughout the season.

Work was undertaken during the year in making necessary repairs to the fence, which also was patrolled at regular intervals to free the wire from the accumulation of wind-driven weeds.

WAWASKESY NATIONAL PARK

This sanctuary for the preservation of pronghorn antelope, situated about twenty-five miles north of Medicine Hat in the Province of Alberta, comprises an unfenced area of 34,560 acres. The reserve is ideally suited for the propagation of antelope, with good grazing and water in abundance. Being unfenced, the animals are free to roam and it is difficult, therefore, to arrive at an estimate of their numbers. However, according to the calculations of competent observers, the herds of antelope ranging on the park reserve and in the vicinity last winter numbered well over 500 head. Only a few scattered bands of antelope were to be seen in this region twenty years ago but since the reserve was created the animals have greatly increased. In addition to the antelope, the black-tail or mule deer are reported to be on the increase, and several small herds have been observed along the river in the park and on adjoining land.

GEORGIAN BAY ISLANDS NATIONAL PARK

The records from Beausoleil island, the largest of the group of thirty islands comprising Georgian Bay Islands National Park, show another year of progress. Flowerpot island, another unit of the park system in Georgian bay, likewise was popular. No record is maintained of visitors at the smaller islands making up the remainder of the park group, but reports indicate that advantage was taken of the opportunity these islands afford of healthful recreation under ideal conditions.

There was a total of 3,419 visitors at Beausoleil island during the season, a decrease of 411 compared with the corresponding period in 1933. As there is no full-time resident caretaker at Flowerpot island, no registration of visitors was attempted, but after making allowance for the effect of unseasonable weather during August the total number of visitors to the islands in the park group gives a total of 5,919 visitors to the park, as against 6,780 in 1933.

A number of improvements were made for the convenience of visitors at Beausoleil island during the year, notably, two additional docks, four new campers' stoves, and eight tables with benches, and a new shelter with cement floor at Toby's beach. A new bathhouse of log slab construction, with cement floor, also was built on a location convenient to the beach a short distance from the approach from the main dock to Park headquarters. Other work included the laying out of new camping areas, grading and levelling at Toby's and Indian Head beaches and improvement of main trails on Beausoleil island. Forty feet of the main dock was repaired.

Improvements at Flowerpot island during the year were limited to the construction of a stone-filled crib, with approach, on the southwest side of the island, to provide a temporary landing in cases of emergency.

Patrols of the various islands were carried out at regular intervals by the Park warden, during which deer and red fox were sighted, numbers of the former remaining on Beausoleil island throughout the winter months.



One of the "flowerpots" at Flowerpot Island
Georgian Bay Islands National Park

POINT PELEE NATIONAL PARK

The great popularity of Point Pelee National Park as a recreation centre was abundantly proven by tourist figures for the year, with a total of 51,973 cars carrying 207,892 passengers compared with 37,345 cars and 149,380 passengers for the corresponding period last year, an increase of 58,512, or nearly 40

per cent. This total, which constitutes a record for the park, is made up of an increase in Canadian tourists of 24,904, and in United States tourists of 33,608.

There was a corresponding increase in the number of camping permits, with a total of 926 during 1934-35 compared with 701 during 1933-34. Michigan camping parties led with 468, followed closely by Ontario with 433. Camping permits were issued for periods ranging from one day to one month, and of the total, 638 or 68·9 per cent were for one month each.

Excellent progress was made during the year with the general improvement of the park. Accommodation for cars and campers was increased, and the facilities for bathing were improved by the construction of a new bathhouse. The main Park road was maintained in good condition, and there were applications of road oil in season. Other improvements included the painting of all Park buildings and the construction of fifty tables and one hundred Park benches.



Tourists at Automobile Campground. Point Pelee National Park

The park is a notable concentration point for bird migrants in spring and autumn. During flight northward to their nesting grounds, and again on their southward return, great flocks of wild duck rest for a spell on the marshy areas in this region. Other migratory birds that find sanctuary on Park waters include Canada goose and whistling swan. Several species of southern bird life occur in the park, notably cardinal. Other birds found in the park are quail and pheasant, the latter having been remarkably plentiful during the year. There is no big game in the park but grey squirrel and rabbit were numerous.

The park is a favourite rendezvous for contingents of Boy Scouts and Girl Guides, who enjoy the facilities which the park affords for camping and recreation. The Canadian National Beagle Club also held its annual meet in the park during March last, which was attended by a large number of people and at which no less than thirty dogs participated.

ST. LAWRENCE ISLANDS NATIONAL PARK

Fourteen islands and a portion of the mainland comprise the St. Lawrence Islands National Park, forming a chain of holiday reservations scattered on the St. Lawrence river from Kingston to Morrisburg a distance of approximately 80 miles.

These island parks attract annually large numbers of tourists, their accessibility being a favourable circumstance, in addition to the beauty of their setting. As pleasure resorts, the islands offer opportunity for recreation, notably yachting, canoeing, camping and fishing. The islands are well wooded and, with the cool breezes which blow across the broad river, visitors are assured of a pleasurable experience even during the hottest periods of summer. The islands are grouped for purposes of administration, with a part-time caretaker in charge of each group, an officer who is made responsible for the clean and tidy condition of the islands under his jurisdiction, and for the enforcement of Park regulations. It has been found impractical to register the number who visit these island parks annually but it is conservatively estimated that during the year about 15,000 people visited the park.



St. Lawrence River from Beau Rivage Island. St. Lawrence Islands National Park

Many improvements have been made for the convenience of visitors, including pavilions, shelters, wharves, camp stoves, rustic tables, and benches; and necessary repairs were carried out preliminary to the tourist season.

FORT ANNE NATIONAL PARK

The historical importance of the site of Fort Anne at Annapolis Royal, Nova Scotia, led to its establishment as a National Park in 1917. Most of the original buildings have been long since demolished but there remains still the Officers' Quarters, built about the year 1798. This is a quaint structure with three tall chimneys and thirty fireplaces, which is now being restored and made

fire-resisting, without in any way changing its historic architecture. The building has been used in recent years for office and museum purposes, and houses an extensive collection of relics of importance to students of Acadian history.

In the past year, 9,676 persons visited the museum, and it has been estimated that an additional 3,500 visited the grounds of the fort, making a total of 13,176 visitors. The increase in the number of museum visitors, compared with the twelve months ended March 31, 1934, was 2,121, or 28 per cent.

Fort Anne was visited by a number of distinguished persons during the year, notably Rt. Hon. Ramsay MacDonald, Prime Minister of Great Britain, and his daughter, Miss Ishbel MacDonald; Sir Ronald Storrs, formerly Governor of Jerusalem, and Lady Storrs; also many leaders in Art, Literature and Law. Visitors who were likewise welcomed included parties of delegates of various organizations on tour, particularly a number of the French delegation visiting Canada on the occasion of the celebration of the 400th Anniversary of the Landing of Jacques Cartier at Gaspé, P.Q., and many others.

Among the donations made to the Park Museum were the following: engraving of Bishop Charles Inglis, first Protestant Bishop of Nova Scotia; a book "The Mariner's Compass Rectified" dated 1753, which belonged to and bears the signature of Admiral Phillips Cosby, born at Annapolis Royal; coat-of-arms of Captain John Robertson (1764-1872); part of a document pertaining to, and signed by Samuel Douglas in 1734-35; pestle and mortar, cannon-ball from Fort Beauséjour, reeds and temple from a hand loom for weaving cloth; grant dated 1732, bearing signature of Paul Mascarene; also that of Lawrence Armstrong, with seal, and of William Winniett; letter of introduction from Sir William Fenwick Williams to Lieut.-General Grant, commanding United States Army, dated November 10, 1864; map of Nova Scotia, dated 1829, showing Shubenacadie canal and its locks; fringe loom and waffle iron, once the property of Reverend Jacob Bailey, a United Empire Loyalist rector of the Anglican Church at Annapolis Royal; original grant of the property on which St. Luke's Church is erected (part of the "White House Field" military property), dated 1814; Micmac Indian hat; map of the British and French settlements in North America, (1751-55); letter from Sir Charles Tupper to a Mr. MacDougall, and another from Sir John A. Macdonald to His Honour, Herbert S. McDonald; Prussian army helmet; tourniquet used in the Crimean war; leather belt covered with military buttons and badges; buttons and badges of a number of regiments which saw service at Fort Anne—the 66th, now the Royal Berkshire Regiment; the 60th, now the King's Royal Rifle Corps; the 8th, now the King's Regiment, and others. It is hoped to build up a complete record of the regiments which served at Fort Anne during the British occupation, 1710-1854. These buttons and badges, suitably mounted, will be exhibited in the Garrison Room of the museum.

An event of considerable interest was staged at Annapolis Royal on July 30, continuing at Digby the following day. This was an Indian Carnival, or historical pageant, depicting the arrival in 1606 of the ship *Jonas* with the French pioneers aboard.

Improvements effected at Fort Anne National Park during the year, aside from the restoration of the museum, included remodelling of the bandstand.

FORT BEAUSÉJOUR NATIONAL PARK

Fort Beauséjour National Park is composed of remains of old military fortifications, the preservation of which from complete disintegration was undertaken by the National Parks Service, in 1926.

In the development of Fort Beauséjour as a National Park, care has been taken to preserve as far as possible the historical atmosphere of the place, for

which purpose repairs to the remnants of the fortifications have been largely restricted to preservation of what remained at the time the site came under the jurisdiction of the Department of the Interior. Apart from repair work, facilities have been provided for the convenience of visitors to the park.

Work during the year consisted of necessary repairs to the stone wall at the old British entrance to the fort, which was carried up two tiers of approximately two feet, making a total height of ten feet. Stone from the original structure of the fort, found on the site, was employed for the purpose. Excavation of the remains of the old French casemate, immediately inside the wall referred to, was carried down a depth of two feet, thereby uncovering remnants of the original flooring and floor drains. A flight of stone steps at the casemate entrance was excavated and the original main drain of the fort was uncovered, and a section of it cleared out.

Sections of the trenches comprising Monckton's lines, which had fallen in and were overgrown with brush, were cleared out and repaired. The sections reconditioned comprised sites of two mortar batteries and the communication trenches, the whole operation involving a total of 800 feet of trench.

Fort Beauséjour National Park is accessible by motor, being located just off the highway between Sackville, New Brunswick, and Amherst, Nova Scotia. The park was visited during the year by about 4,500 persons.

Migratory Birds Convention Act

(Chapter 130, Revised Statutes of Canada, 1927, and amendments)

On August 16, 1916, a treaty was signed at Washington, D.C., between the United States of America and Canada, the provisions of which were ratified and given the force of law by Act of the Parliament of Canada during the session of 1917.

Object.—Protection of certain migratory birds in Canada and the United States.

Administration.—The Minister of the Interior is responsible to Parliament for fulfilment of Canada's obligations under the Treaty; the Commissioner of National Parks is responsible to the Minister for the administration of the statute, and the Supervisor of Wild Life Protection is technical adviser and executive assistant.

Under and by virtue of Order in Council, P.C. 2283, of October 14, 1932, responsibility for police work pursuant to enforcement of the provisions of the Migratory Birds Convention Act, and Regulations made thereunder, was transferred to the Royal Canadian Mounted Police; all other powers and responsibilities continuing to remain with the Department of the Interior.

PROTECTION OF MIGRATORY BIRDS

Wild Ducks and Geese.—Because of widespread interest in wild ducks as a source of food and sport, the continued failure of the southern prairies to afford the usual supply has created much concern. For many species of ducks the drought area should be the chief nesting ground, and the species which depend on the drought area for nesting are very seriously depleted. Each species has a different nesting range and complete extermination of many western-nesting species has only been prevented by the fact that to varying degrees there is a more or less limited nesting ground, differing for each species, outside the prairie drought area.

Canadian investigations were made by officers of the branch, assisted by hundreds of voluntary observers throughout Canada. Very briefly the results which have already been made public in detail, and have been widely disseminated, indicate that conditions in British Columbia were approximately normal; that because of failure of shallow bodies of water on the southern prairies, a very important waterfowl breeding district, very few ducks were raised; that the northern part of the Prairie Provinces had a shortage of breeding stock to occupy favourable nesting territory; that there was a good late flight of

mallards on the prairies; and that the conditions in the great black duck nesting area east of Manitoba were normal, but that a great shortage of black ducks was indicated during the last hunting season. This very important species may have been depleted because the breeding stock was reduced during the previous severe winter, because of over-shooting, or possibly from a more obscure cause.

Generally, the several species of wild geese nest beyond civilization, any nesting places within the settled zone having disappeared, due to settlement. Given wintering grounds and moderate protection from over-shooting, they have been considered fairly safe from depletion. Then came the failure of eel-grass on the whole Atlantic coast, cutting off an urgently needed winter food, and almost immediately there was a severe depletion of brant and Canada geese throughout the Maritime Provinces.

Efforts to produce a suitable food substitute for eel-grass are being carried on and the situation watched carefully.

Special reports were prepared by Mr. A. E. Persild of the Lands, Northwest Territories and Yukon Branch, under the title, *The Mackenzie Delta as a Breeding Ground For Waterfowl*, and by Mr. E. F. G. White, who acted as honorary ornithologist with the Canadian Arctic Expedition during the past summer.



Lesser Yellowlegs on shore of a lake in Western Canada

Other Birds.—The Migratory Birds Treaty extends its protection to a great number of other birds, and among these no unusual or serious depletion has been recorded. It is true that a number of species have been exceedingly rare for many years, but in the case of some, notably trumpeter swan, reports are encouraging.

Administration.—During the year a division was made of the western district, comprising British Columbia and the three Prairie Provinces. The Chief Federal Migratory Bird Officer, who was formerly responsible for this area, continues in charge of administration of the Migratory Birds Convention Act in British Columbia, while a new chief officer, recently appointed, will be responsible for enforcement of the Act in Manitoba, Saskatchewan and Alberta.

In addition to their administrative activities, the Chief Federal Migratory Bird Officers made a number of special investigations of conditions relating to waterfowl, and their reproduction in the Prairie Provinces and British

Columbia; as to the food resources of waterfowl on the Pacific coast, and the effect of eel-grass disease on the Atlantic coast. A primer on the common birds of Nova Scotia was prepared and published by the Chief Migratory Bird Officer for the Maritime Provinces. Progress also was made in the establishment of an eiderdown industry in the eastern part of the province of Quebec. Many public lectures on topics relating to conservation of birds were delivered, and a number of articles published on timely subjects.

A new sanctuary, named Ferme Yamaska Bird Sanctuary, was established near Farnham, Quebec, during the year.

The force of honorary bird officers appointed under the Act, 752 in number, continued its activities.

Permits and Licences.—During the year 1,418 licences and permits were issued under the provisions of the Migratory Birds Convention Act for the following purposes: to collect birds for scientific purposes, 269; to band birds, 166; to possess birds for propagating purposes, 753; to capture birds for propagating purposes, 10; to destroy birds seriously injuring agricultural, fishing, or other interests, 129; to collect eiderdown, 22; to practice taxidermy, 65; to control great black-backed gulls within a bird sanctuary, 1; to possess and discharge firearms in a bird sanctuary for the purpose of shooting (a) seal, 1, and (b) crow, 2.

Bird Banding.—More than 13,847 birds were banded during the year, and 1,761 banded birds were recovered. Bird banding was undertaken during the year by 166 voluntary co-operators under special permit. As a study it is of necessity international in the case of migratory birds, and the Wild Life Division enjoys full co-operation with officials of the United States who conduct bird banding in that country. The banding records are a source of much important ornithological information. All banded birds found should be reported to the Commissioner of National Parks, Department of the Interior, Ottawa, Canada.

Publicity.—During the year a great number of inquiries regarding birds and their protection were received from writers, lecturers, and individuals interested in the practice of conservation. During the year there were distributed the following: pamphlets, 32,913; Migratory Birds Convention Act (unabridged), 6,259; abridgements, 10,650; posters, 46,022. A total of 156 lectures was given by the Supervisor of Wild Life Protection and district bird officers. Motion pictures were utilized in connection with a number of these lectures by officers of the department, and a total of 2,978 lantern slides was loaned to voluntary lecturers throughout the country.

Game Conferences.—The Wild Life Division was represented at the following conferences on conservation and scientific phases of its work: the International Association of Game, Fish and Conservation Commissioners, Montreal, on September 10-11, 1934; the 52nd Stated Meeting of the American Ornithologists' Union at Chicago, on October 22-26, 1934; the American Game Conference, under the auspices of the American Game Association, at New York, on January 20-23, 1935 (the Supervisor of Wild Life Protection of this department was Chairman of this conference); the meeting of the American Bison Society, at New York, on January 24, 1935; and the 7th New England Game Conference under the auspices of the Massachusetts Fish and Game Association, at Boston, Massachusetts, on January 26, 1935.

GENERAL WILD LIFE

Snowshoe Rabbit.—During the year 1934-35, the investigation into the cycles of abundance and scarcity of the snowshoe rabbit or northern varying hare was continued. Following the practice of the last few years, questionnaires

were distributed to observers throughout Canada, and the statistics gathered were compiled by Mr. Charles Elton, Director of the Bureau of Animal Population, Oxford University, Oxford, England. The information resulting from these studies, as conducted by the bureau, has proved of especial value because of its correlation to similar investigations of other species of wild life in various parts of the northern temperate zone. The time element is an important factor in the study of such cycles, and the bureau has access to the archives of the Hudson's Bay Company, the long records of which are of great assistance in disclosing important basic data. Mr. Elton's deductions on the subject have been published in a number of natural history journals.

Historic Sites and Monuments

Progress was made in the restoration and preservation of sites of national importance placed under the care of the National Parks Service. The National Parks Service is responsible for the administration of historic sites placed under it and the Historic Sites and Monuments Board of Canada, an honorary body composed of recognized historians representative of the various provinces of the Dominion, acts in an advisory capacity to the department.

At the annual meeting of the Board, held at Ottawa, May 28, 29, and 30, 1934, several sites, suggested for marking, were considered from the standpoint of national importance and a selection was made for future commemoration from the number submitted.

The outstanding events of the year under review were the Cartier Celebrations, participated in by representatives from Great Britain, France, and the United States, the celebrations in connection with the 150th anniversary of the founding of the present Province of Ontario by the migration of the United Empire Loyalists, and the erection of a monument to commemorate the founding of the Province of New Brunswick.

During the fiscal year 1934-35 the following memorials were erected:—

Discovery of Prince Edward Island, Charlottetown, P.E.I.—A cut stone monument bearing two tablets was erected on the grounds in front of the Legislative building by permission of the Provincial authorities, to commemorate the 400th anniversary of the landing of Jacques Cartier on Prince Edward Island, June 30 and July 1, 1534.

Founding of New Brunswick, Saint John, N.B.—A granite cross bearing a bronze tablet was erected with the consent of the Common Council, at the northeast corner of King square, facing the old burial ground, in commemoration of the founding of the Loyalist Province of New Brunswick, by order of the British Government, on August 16, 1784. Its first Governor was Thomas Carleton, who arrived at Saint John on November 21 of that year and proclaimed civil government the following day.

Lt. Col. Charles Michel de Salaberry, Beauport, P.Q.—A tablet was affixed to the house known as "Darnoe" on Royal avenue by permission of Mrs. James Geggie, to commemorate the services of Lt. Col. de Salaberry, who was born at Beauport, November 19, 1778. His defeat of United States troops under Major-General Hampton on October 26, 1813, was one of the outstanding events of the war and gained for him the name of "The Hero of Châteauguay."

Jacques Cartier, Gaspé, P.Q.—A thirty-foot granite cross, bearing a bronze tablet, was erected on a plot of land provided by La Corporation Episcopale d'Gaspé, adjacent to the Perron boulevard, to commemorate the 400th anniversary of the landing of Jacques Cartier at the entrance to Gaspé harbour on July 24, 1534.

First Paper Mill in Canada, St. Andrews East, P.Q.—A tablet was affixed to the cairn erected in the small park near the town hall, to mark the site of the first paper mill in Canada, which was built in 1803-05 by a group from the New England States, this being the inception of one of Canada's most important industries.



Thirty-foot granite cross (quarried in one piece) erected at Gaspé, P.Q., in 1934, to commemorate the four hundredth anniversary of the landing of Jacques Cartier

United Empire Loyalists, Cornwall, Ont.—A tablet was affixed to the front of the Post Office building, facing Second street west, with the consent of the Department of Public Works, to commemorate the unswerving fidelity and eminent services of the Royal Highland Emigrants; the King's Royal Regiment of New York; the Loyal Rangers; and the King's Rangers, in the defence of the city and Province of Quebec, 1775-1783, and who, in later years, subdued the wilderness and laid the foundations of the Province of Ontario.

Crawford Indian Purchase, Kingston, Ont.—A tablet was affixed to the stone gateway at the entrance to Tete du Pont barracks, with the consent of the Department of National Defence, to commemorate the treaty made between Captain William Redford Crawford of the Royal Regiment of New York, acting for the Crown, and the Mississauga Indians in October, 1783. By its terms the tract of land now composing the counties of Glengarry, Stormont, Dundas, Grenville, Leeds, Frontenac, Lennox and Addington, Hastings, and Prince Edward, was purchased for the settlement of United Empire Loyalists.

Carrying Place, Bay of Quinte, Ont.—A cairn with tablet was erected on a plot of land provided by the local School Board, at the intersection of the Trenton road with the Carrying Place road, to commemorate the treaty concluded there by Sir John Johnson with Chiefs of the Mississauga Indians on September 23, 1787, by which they ceded to the Crown the land extending westward from the bay of Quinte to Etobicoke river, a little west of Toronto, and northward from lake Ontario to lake Simcoe and Rice lake.

Treaties of Niagara, Niagara-on-the-Lake, Ont.—A tablet was affixed to the outer wall of the Niagara Historical Museum building, by permission of the local historical society, to commemorate the treaties concluded with the Chippewa and Mississauga Indians by Colonel Guy Johnston, on May 9, 1781, and by Lieut. Colonel John Butler, on May 22, 1784, by which a great tract of fertile land, extending westward from the Niagara river to the mouth of Catfish creek on lake Erie, was purchased for the settlement of United Empire Loyalists, disbanded soldiers, and expatriated Indians of the Six Nations.

Butler's Rangers and Action at Butler's Farm, Niagara-on-the-Lake, Ont.—Two tablets were affixed to a standard erected by the Niagara Parks Commission at Butler's Burial Ground, one in memory of the unflinching loyalty and valiant service of the officers and soldiers of Butler's Corps of Rangers, 1777-1784, and the other to commemorate the engagement which took place on July 8, 1813, when an outpost of the invading force, encamped near Fort George, was defeated by a band of Six Nations and Western Indians, led by Chiefs John Norton and Blackbird, and interpreters Michel Brisebois, Louis Langlade, and Barnet Lyons.

Six Nations Indians, Ohsweken, Ont.—A cut stone monument with tablet was erected on the Council House grounds to commemorate the loyal services and unswerving fidelity of the Six Nations of Iroquois Indians to the British Empire in the Seven Years War, the War of the American Revolution, and in the defence of Upper Canada in 1812-14 and 1837-38.

McKee's Indian Purchase, Blenheim, Ont.—A cairn with tablet was erected at the entrance to Memorial Park by consent of the Town Council, commemorating the treaty made by Alexander McKee on May 19, 1790, with the Chippewa, Ottawa, Pottawatomie, and Huron Indians, when a great tract of land, comprising most of the present counties of Essex, Kent, and Elgin, and part of Middlesex, was peacefully acquired to provide homes for expatriated United Empire Loyalists.

PRESERVATION WORK

Preservation and other development work was carried out at the following sites:—

Fortress of Louisbourg, near Louisbourg, N.S.—Further progress was made in connection with the development of this historic site. The entrance road was resurfaced, where necessary. Construction of a new protection crib, to replace the one washed out along the main entrance road, was continued.

Excavations were carried out along the outside ruins of the Chapel walls and main doorway and walls of the Officers' Quarters. Some excavation work also was done in the dry moat in front of the Citadel. The Chapel wall along the front of the building, and the walls along the Officers' Quarters were rebuilt to an average height of two feet above ground level, and eight feet above the floor of the moat.

Fort Ste. Therese, near Chambly, P.Q.—The boulder memorial was removed from the Bunker United Empire Loyalist cemetery to a new location adjacent to the Chambly-St. Jean highway, and the site fenced.

Fort Chambly, Chambly, P.Q.—Repairs were made to the two bastions along the river front; the masonry in the outer walls was repointed where necessary, and other minor improvements carried out on the powder magazine and dungeon.

Fort Lennox, Ile-aux-Noix, P.Q.—The two cemetery plots were fenced; the commissariat building was partially re-roofed; pointing and repairs were carried out on the men's barracks, also on the north entrance arch and the casemates.

Fort Prince of Wales, Churchill, Man.—Through the co-operation of the Department of Railways and Canals, considerable work was carried out on the site, including the digging up of forty cannon from the debris on the ramparts; the construction of foundations to carry nineteen pieces of this ordnance, and the mounting of five pieces on wooden gun carriages behind the gun embrasures in the wall. The north stone wall in the central fort area was first straightened in order to make it possible to hold the rampart in front of it on which the gun foundations were built.

ACQUISITION OF SITES

Liverpool Privateersmen, Liverpool, N.S.—Permission was obtained from the Town Council, and from the Department of Marine, to erect a memorial in the centre of the fort mound at the head of Fort Point Park, in memory of the Privateersmen of Liverpool bay.

The 104th New Brunswick Regiment, Fredericton, N.B.—Permission was obtained from the City Council to erect a memorial in the triangular park area at the junction of Brunswick, King, and Smythe streets, to commemorate the distinguished services of the 104th New Brunswick Regiment.

Capture of the "Tigress" and "Scorpion," Penetanguishene, Ont.—Permission was obtained from the Town Council to place a memorial in Huronia Park, to commemorate the events connected with the capture of the United States ships of war *Tigress* and *Scorpion*, September 3 to 5, 1814.

Lansdowne Iron Furnace, Lyndhurst, Ont.—Mr. F. W. Bresee has offered to donate a plot of land, comprising part of Village Lot 80, on which to erect a memorial to mark the site of the iron works built on this site in 1801.

Cumberland House, Cumberland House Settlement, Sask.—Mr. W. Jennings donated a triangular parcel of land, covering a portion of Lot 10, on which to place a memorial to mark the site of the post built by the Hudson's Bay Company in 1774.

The Peacemakers, Wetaskiwin, Alta.—Permission was obtained from the civic authorities to place a memorial on Block 85, facing the main highway between Calgary and Edmonton, to commemorate the public services rendered by the Reverend Father Lacombe and the Reverend John McDougall, respectively, during the troublous days of 1885.

APPENDIX

The Alpine Club of Canada

(From the report of the Chairman of the Club-House Committee)

The club-house at Banff, which opened on June 23, enjoyed an active season. Owing to the fact that the 1934 Medical Convention was held at Calgary, the club-house was opened ten days ahead of schedule to accommodate a number of the delegates who had expressed a desire to stay there. This was appreciated greatly, not only by the medical members, but also by many of the general members.

There was a total registration of 292 guests, represented regionally as follows:—

Alberta	79	Australia	1
British Columbia	36	China	4
Manitoba	16	England	9
Ontario	45	New Zealand	1
Quebec	20	United States	70
Saskatchewan	11		

The decrease in the number of guests, compared with the previous season's total of 386, is accounted for by the fact that the club-house did not cater to week-end guests as formerly, but from a financial standpoint returns during the season under review were much better. Many members of the Dominion Medical Society who also are members of the Alpine Club of Canada and accordingly stayed at the club-house, were instrumental in having many of their brother-medicos put up at the club-house during the convention at Calgary, some of whom did not leave until July 3. The club-house closed early in September, as usual.

In accordance with previous custom, two double cabins, the property of the club, were open for winter occupation and many parties of out-of-season guests were accommodated.

(From the report of the Secretary of the Alpine Club of Canada)

The 29th annual camp was held from July 16 to July 31, in Jasper National Park, on an alpine meadow two miles south of Chrome lake, between Outpost and Thunderbolt peaks, both of which afforded excellent facilities for mountaineering schools and training climbs. The Park authorities constructed a trail along Astoria river from the viewpoint near mount Edith Cavell, which eliminated the halfway stop-over and enabled members of the club to reach camp in one day. The weather, which had been wet and cold prior to the opening of camp, cleared wonderfully and on only one occasion was it necessary to postpone climbing, though fresh snow on the peaks prevented climbs on the Ramparts.

Picnics, sketching parties, and various expeditions were undertaken to Amethyst lakes, and also to those below Thunderbolt and Outpost peaks. However, the backwardness of flowers, due to previous cool weather, was a great disappointment to the botanists and photographers present. The Memorial Hut was used by several of the members, both as a base for climbs and for picnics, also as an extra supper place for late parties returning from various expeditions. First ascents were made on mounts Anchorite, Angle, Needle, and the Pinnacles at the head of the valley by Eremite pass. Other climbs undertaken included mounts Alcove, Bennington, Erebus, Eremite, Memorial, Oldhorn, Paragon, Simon, and McDonnell. The fly-camp at Icefall lake, erected for the use of members making the glacier trip, was visited by three parties, but

weather conditions prevented any climbing of mount Geikie or the North Ramparts. Eight members passed the test for active membership with climbs on mount Alcove.

Visitors to camp included members of the club from London, England, and Zurich, Switzerland, also from the United States, and Canada. Seventy-five persons were accommodated under canvas, representatives attending from the Alpine Clubs of England, France, Switzerland, and the United States; the Climbers' Club (Great Britain); the Ski Club of Great Britain; the Ladies' Swiss Alpine Club; the Royal Geographical Society; The Appalachian Mountaineering Club; The Mazamas; and the Sierra Club.

The annual meeting of the club was held in camp on July 27, for the election of officers and transaction of business, when the work of the year was reviewed.

THE NATIONAL PARKS OF CANADA—*Concluded*

Park	Location	Date established	Area in square miles	Characteristics
Mount Revelstoke...	Southeastern British Columbia on the summit of Mount Revelstoke.	1914	100.00	Nineteen-mile drive up Mt. Revelstoke affording panoramic views of the Columbia and Illecillewaet valleys. Clachnacudainn ice field, lakes Eva and Millar. Game sanctuary and winter sports resort.
Nemiskam.....	Southern Alberta, near Foremost.	1922	8.50	Fenced pronghorned antelope reserve, containing more than 300 head of this interesting animal, a species indigenous to the region.
Point Pelée.....	Southern Ontario on lake Erie.	1918	6.04	Most southerly mainland point in Canada, 41° 54' N. Resting place of many migratory birds; unique flora. Recreational area, camping bathing.
Prince Albert.....	Central Saskatchewan, north of Prince Albert.	1927	1,869.00	Forest country of northwestern Canada. Birch, spruce, jack pine, poplar. Lakes and streams. Moose, deer, bear, beaver and interesting bird life. Excellent fishing, northern pike, pickerel and lake trout. Summer resort, sand beaches, camp-grounds, Government golf course.
Riding Mountain....	Southwestern Manitoba, west of lake Winnipeg.	1929	1,148.04	Rolling woodland country in western Manitoba dotted with several beautiful lakes. Natural home of big game including one of the largest herds of wild elk in Canada. Summer resort; fine bathing and camping. Government golf course.
St. Lawrence Islands	In St. Lawrence river between Morrisburg and Kingston, Ontario.	1904	185.6 (acres)	Thirteen islands among the "Thousand Islands" in the St. Lawrence river. Recreational area, camping, fishing.
Waterton Lakes.....	Southern Alberta adjoining Glacier park in Montana, U.S.A.	1895	220.00	Canadian section, Waterton-Glacier International Peace Park. Mountains noted for beauty of colouring; lovely lakes, picturesque trails; waterfalls, snow peaks. Trout fishing, camping, Government golf course.
Wawaskey.....	Southeastern Alberta...	1922	54.00	Antelope reserve, as yet undeveloped.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.00	Rugged scenery on west slope of Rockies. Kicking Horse valley. Lofty peaks, large number with permanent ice-caps or glaciers. Famous Yoho valley with numerous waterfalls, one over 1,200 feet in height. Natural bridge, Emerald lake, lakes O'Hara and McArthur.

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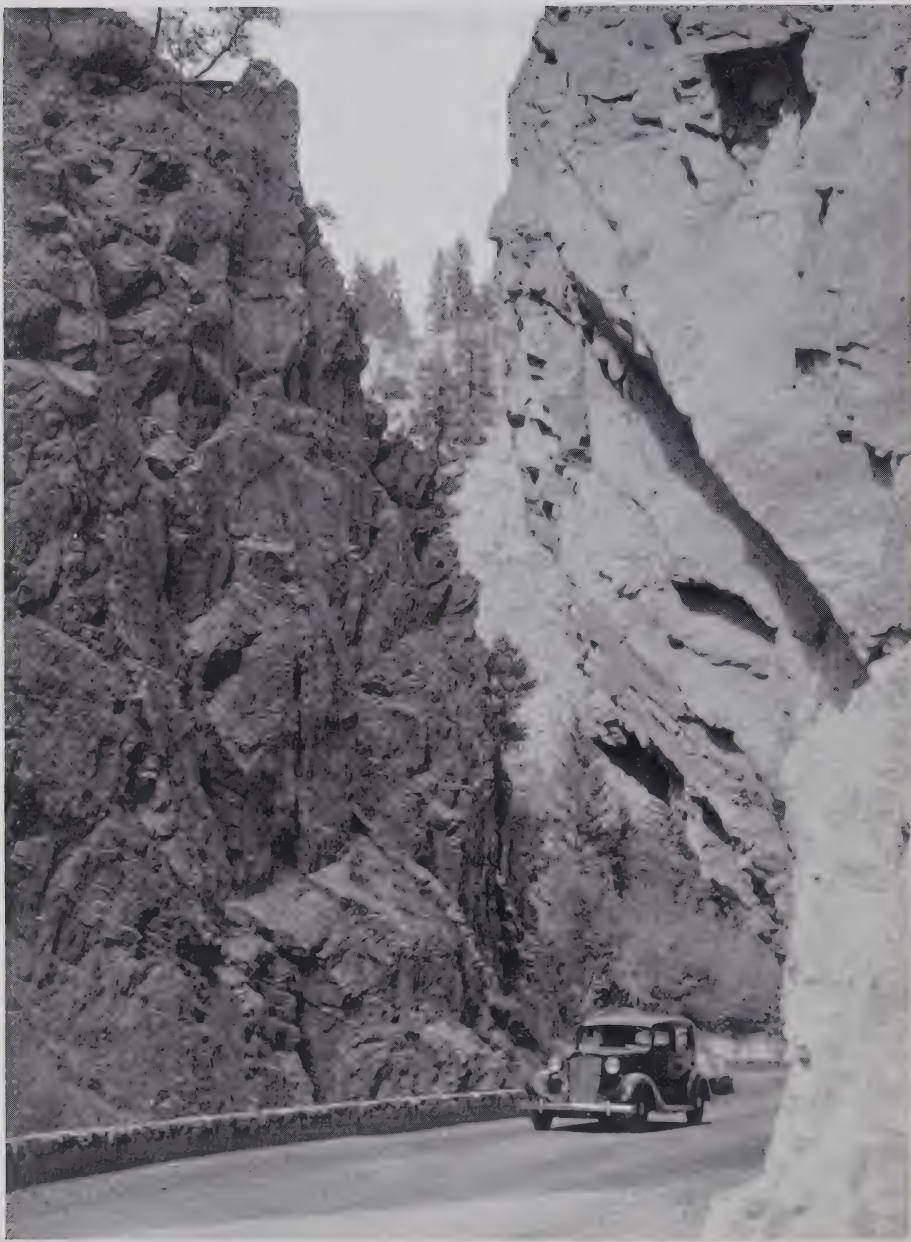
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ANNUAL REPORT
1935 - 36



Sinclair Canyon, looking north. Kootenay National Park.

DEPARTMENT OF THE INTERIOR, CANADA

HON. T. A. CRERAR, Minister

J. M. WARDLE, Deputy Minister

NATIONAL PARKS OF CANADA

J. B. HARKIN, Commissioner

ANNUAL REPORT

OF THE

COMMISSIONER OF NATIONAL PARKS

FISCAL YEAR ENDED MARCH 31,

1936

OTTAWA

J. O. PATENAUDE, I.S.O.

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1936

NATIONAL PARKS OF CANADA

REPORT OF THE COMMISSIONER, J. B. HARKIN

National Parks

THE YEAR IN REVIEW

In reviewing the activities of the fiscal year 1935-36, it is gratifying to be able to report that, notwithstanding present economic conditions, the National Parks of Canada experienced a record year in the matter of tourist registrations, with a total of 771,794 visitors compared with 710,778 for the fiscal year 1934-35. The importance of the National Parks as centres of attraction to tourists from abroad is shown by the fact that of the total Parks tourist registrations, 159,661, or 20 per cent, were of United States origin. Another indication of the growth of interest in the National Parks may be found in the number of inquiries dealt with through the Tourist Information Bureaus maintained at Banff, Waterton Lakes, and Riding Mountain National Parks, which during the year numbered 38,775 compared with 33,798 for the corresponding period in 1934-35.

The campgrounds in the various parks continued to be a popular feature with motor tourists. Although registrations were slightly lower in number than during the preceding year, the decline in the use of these facilities was offset by a noticeable increase in the number who took advantage of the greater conveniences obtainable in auto bungalow camps in the large scenic parks.

From the standpoint of forest fire prevention, the year under review was generally favourable. The fire hazard was at no time unduly high and on all occasions the outbreak of fire was quickly detected and suppressed. The only serious fire was one which occurred in Waterton Lakes National Park during August. This fire, which was caused by lightning, started on the United States side of the International Boundary, and was extinguished only with difficulty owing to the inflammability of forest growth at that time of the year. As in previous years, aerial patrols carried out by the Royal Canadian Air Force in Prince Albert and Riding Mountain National Parks were most effective in the detection of fires.

Conservation of wild life in the National Parks continued to occupy the attention of the service. Reports indicate that most species of game animals are maintaining their numbers, and while the situation with regard to predatory animals appears to be well in hand, in a number of parks it was found that cougar and coyote were causing damage to wild life, and appropriate measures were taken to deal with the situation.

Appropriations totalling \$4,021,698.73 were made available during the fiscal year 1935-36: (a) National Parks vote, \$1,130,345.50; (b) Relief Act, 1935, \$311,554.99; (c) Public Works Construction Act, 1934, and Supplementary Public Works Construction Act, 1935, \$2,543,289.24; (d) Administration of the Migratory Birds Convention Act, \$36,509. Expenditure of public moneys under authority of the above was as follows: (a) \$1,096,149.88; (b), \$168,145.45; (c) \$2,050,889.11; (d) \$35,719.93—total, \$3,350,904.37.

Work on projects initiated in August, 1934, under the Public Works Construction Act, 1934, was resumed for the most part early in the spring of 1935 and continued throughout the working season. With the enactment of the Supplementary Public Works Construction Act, 1935, which came into force in July, additional projects for the improvement and development of the parks were undertaken and progress reported during the remainder of the year.

Work on a relief basis was provided for single, homeless men over two periods: (a) spring operations (extension of winter work) in Riding Mountain National Park from April 1 to June 30, 1935, and (b) winter operations in Prince Albert National Park from January 1 to March 31, 1936.

Work on a quota basis for permanent Park residents with domestic responsibilities also was provided during the winter of 1935-36 at Banff, Jasper, Yoho, and Waterton Lakes National Parks.

Regular Parks work, involving maintenance and operation of public utilities, was continued throughout the year. Construction on the east leg, or Donald to Boat Encampment section, of the Golden-Revelstoke Highway, which was undertaken in 1929 by the National Parks Service on behalf of the Dominion, was continued during the year. On July 7, 1935, the branch likewise took over construction of the west leg of this highway from the Department of National Defence, through which department the Dominion had previously carried on the work of construction on a relief basis by arrangement with the Government of British Columbia.

NATIONAL PARKS VISITORS

The upward trend of tourist travel that marked the fiscal year 1934-35, was well maintained during the year under review, notwithstanding the fact that a decline in registrations occurred in a number of parks due to varying local factors. In the aggregate, tourist traffic during the past fiscal year constituted a record for the National Parks, with a total of 187,135 motor vehicles and 771,794 passengers, compared with 172,450 motor vehicles and 710,778 passengers for the corresponding period of the preceding year, an increase in tourists of 61,016 or 8.58 per cent.

There was a noticeable tendency on the part of tourists to remain for longer periods in the parks included in their itinerary, particular activity being apparent in the demand for accommodation at auto bungalow camps and public campgrounds in the various parks. In this latter connection a record kept of campers indicates that a total of 10,097 motor vehicles, carrying 35,913 passengers, was accommodated at Parks' campgrounds during the season of 1935 (May to September inclusive) for a total of 157,857 person-days, or an average of slightly more than four days per person in camp. That this form of recreation was taken advantage of by fewer numbers than during the corresponding period in 1934, is offset by increased activity at the auto bungalow campsites, a fact that warrants the assertion of there having developed a preference on the part of many tourists for the greater conveniences available at reasonable rates in auto bungalow camps, which, among other things, eliminate the necessity of carrying tents and camping equipment.

Tourist figures by parks for the fiscal year ended March 31, 1936, compared with returns for the preceding year, are given in the following table:—

VISITORS TO NATIONAL PARKS

National Park	1935-36	1934-35	National Park	1935-36	1934-35
Banff.....	143,162	142,774	Mount Revelstoke.....	6,024*	6,000*
Buffalo.....	11,133	12,992	Nemiskam.....	15*	25*
Elk Island.....	44,767	53,769	Point Pelee.....	259,040	207,892
Fort Anne.....	13,229	13,176	Prince Albert.....	21,292	21,108
Fort Beausejour.....	3,848	4,500	Riding Mountain.....	93,895	100,035
Georgian Bay Islands.....	5,521	5,919	St. Lawrence Islands.....	12,700*	15,000*
Glacier.....	1,000*	1,000*	Waterton Lakes.....	47,777	36,765
Jasper.....	10,981	10,757	Yoho.....	56,963	34,319
Kootenay.....	40,447	44,747			
			Totals.....	771,794	710,778

* Estimated.

ENGINEERING

The work of the Engineering division of the National Parks Service has been increased considerably in recent years owing to the rapid development of public utilities in the parks as a measure of unemployment relief.

During the year under review, work under regular Parks appropriation was restricted to maintenance and operation of existing services, including electric power plants, domestic water supply, sewer systems, telephone systems, and other municipal activities. The Engineering division also was responsible for maintenance of 609.55 miles of standard motor highway (including 44.82 miles of new construction) and 111.50 miles of secondary road in the parks, in addition to the construction of 35.50 miles of the Golden-Revelstoke Highway (east leg, 13.50 miles; west leg, 22 miles). This latter included necessary maintenance work on the previously completed section of the east leg (64.50 miles) to permit of the transportation of structural steel and other materials required in connection with the bridge to be erected over the Columbia river at Boat Encampment.

The restoration and marking of historic sites also is a phase of work, the supervision of which is a responsibility of the Engineering division.

Actual road construction during the working season of 1935 is recorded in the following table:—

ROAD CONSTRUCTION—FISCAL YEAR 1935-36

—	Length of road (approx.)	Constructed to grade 1935-36	Previously constructed	Uncom- pleted road
<i>Banff National Park</i>	(miles)	(miles)	(miles)	(miles)
Stoney Squaw Road.....	4.50	0.10	3.50	0.90
Banff-Jasper Highway.....	78.50	6.71	22.22	49.57
<i>Jasper National Park</i>				
Banff-Jasper Highway.....	60.50	10.21	37.83	12.46
Yellowhead Road.....	17.40	3.60	3.28	10.52
Maligne Canyon-Medicine Lake Road.....	9.20	1.66	.....	7.54
<i>Prince Albert National Park</i>				
Narrows Road.....	10.50	4.19	5.25	1.06
<i>Riding Mountain National Park</i>				
Dauphin Road.....	24.00	9.80	14.20	.....
<i>Waterton Lakes National Park</i>				
Belly River Road.....	14.70	7.00	7.70	.....
Parks total.....	219.30	43.27	93.98	82.05

Construction on the Golden-Revelstoke highway also has proceeded, as follows:—

—	Length of road (approx.)	Constructed to grade 1935-36	Previously constructed	Uncom- pleted road
<i>Golden-Revelstoke Highway</i> (Province of British Columbia)—	(miles)	(miles)	(miles)	(miles)
East Leg (Donald-Boat Encampment).....	78.00	14.20	62.00	1.80
West Leg (Revelstoke-Canoe River).....	96.00	18.00	17.00	61.00
Total.....	174.00	32.20	79.00	62.80
Grand Totals.....	393.30	75.47	172.98	144.85

UNEMPLOYMENT RELIEF

Operations for the relief of unemployment, carried on since 1930 in the National Parks, were continued during the fiscal year 1935-36, as follows:—

RELIEF ACT, 1935

(a) *Single Homeless Men*.—The initiation of projects under the Public Works Construction Act, 1934, which went into effect on August 1, 1934, made it possible to absorb, at prevailing rates, a considerable number of men from Parks relief camps. In consequence, work on a relief basis, which during the winter of 1934-35 had centred in Riding Mountain National Park, was necessary only for a short period in the spring of 1935. Moreover, except in Prince Albert National Park, no relief camps were operated by the National Parks Branch during the winter of 1935-36. In the case of Prince Albert National Park, relief camps for single, homeless men were opened in January, 1936, a limited number of men being drafted from relief camps operated by the Department of National Defence at Dundurn, Saskatchewan. Individuals employed in relief camps during the spring and winter periods mentioned numbered 1,013, involving a total of 52,223 man-days of relief.

(b) *Permanent Park Residents*.—Qualified Park residents with domestic responsibilities were again provided with work on a quota basis during the winter of 1935-36 in Banff, Jasper, Yoho, and Waterton Lakes Parks. The number of individuals employed during this period was 231, a total of 14,821 man-days of work having been provided. Dependents of the individuals so employed number 544, making a total of 775 permanent Park residents benefiting under the relief appropriation.



Banff-Jasper Highway (Lake Louise end). Banff National Park Construction along Bow Lake, looking north.

PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935

Projects were continued under the Public Works Construction Act, 1934, as soon as the work of organization was completed in the spring of 1935, and in July, when the Supplementary Public Works Construction Act, 1935, came into force, additional works were started.

The following numbers of men were employed at prevailing rates during the year: April, 259; May, 1,151; June, 1,743; July, 2,124; August, 2,866; September, 3,378; October, 3,600; November, 2,236; December, 698; January, 82; February, 61; March, 479.

The actual number of different men employed under this legislation during the fiscal year was 4,881, the duration of the employment of each man varying according to the circumstances of his particular case and the demands of the work in hand.

Expenditures since 1930

Annual expenditures since the year 1930 on account of public works carried out in the National Parks (including Historic Sites and the Golden-Revelstoke Highway) as a measure of unemployment relief, and to stimulate economic recovery, are shown in the following table:—

—	Relief Acts	P.W.C.A. 1934	Supp. P.W.C.A. 1935	Total
	\$	\$	\$	\$
1930-31.....	36,996 81			36,996 81
1931-32.....	866,128 82			866,128 82
1932-33.....	656,185 84			656,185 84
1933-34.....	1,115,367 82			1,115,367 82
1934-35.....	515,910 69	894,592 51		1,410,503 20
1935-36.....	168,145 45	1,037,007 58	1,013,881 53	2,219,034 56
Totals.....	3,358,735 43	1,931,600 09	1,013,881 53	6,304,217 05

The activities outlined in the following schedule are indicative of the character of the projects undertaken or in process of construction:—

Banff National Park

1. RELIEF ACT, 1934—

(Period, January 1 to March 31, 1936).

Permanent Park Residents—

Trans-Canada Highway (Banff Park section): clearing and brushing.

Stoney Squaw Road: maintenance and construction.

Park Roads, General: widening and revision.

Mosquito Areas: clearing and brushing.

Golf Course: improvement.

Administration Building, and Eastern Entrance Gateway: landscaping and improvement of grounds.

Administration Building Grounds: assembling material for log fence; quarrying rock; distributing and connecting pipe for sulphur-water line.

River Protection Works: riprapping.

General: operating rock crusher, constructing paths, shelters, rustic seats, and dismantling wall at Cave and Basin bathhouse: snow removal; dismantling old Upper Cascade bridge at Anthracite; assembling firewood at campgrounds.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Banff-Jasper Highway (Lake Louise end): clearing, 10.83 miles; grubbing, 9.56 miles; grading, 6.71 miles; surfacing, 8.91 miles; bridges, 2; culverts, 157.

Stoney Squaw Road: brushing, 11.73 miles; clearing, 0.05 mile; grubbing, 0.83 mile; grading, 0.10 mile; surfacing, 0.35 mile.

Banff-Castle Road: improvement and widening.

Banff-Calgary Road: approaches to Cascade River bridge.

Castle-Lake Louise Road: Eldon Hills revision.

Administration and Post Office Building: continuation of construction (nearing completion).

Administration Building Grounds: construction of reflecting pool, rockeries, flagged walks, rustic seats and pavilions; general landscaping.

Eastern Entrance Building and Staff Quarters: construction (nearing completion).

Upper Hot Springs Bathhouse: caretaker's cottage, construction completed.

Cave and Basin Bathhouse: completion of addition to building and construction of sulphur water line; improvement of heating system.

Aeroplane Landing Field: grading and improvement.

Forest Trails: Cascade Creek trail, improvement: ski trail to Skoki and Ptarmigan valleys.



Grading on high mountain slope, Mile 4.5, East Leg, Golden-Revelstoke Highway, B.C.

Elk Island National Park

PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

North Gate Road: surfacing and widening.

South Gate Road: surfacing.

Golf Course: maintenance and improvement, including installation of a watering system.

Sandy Beach Campgrounds: general development, including construction of picnic tables and benches, also reconstruction of stoves, fences and walks.

Government Garage: construction completed.

Fort Anne National Park

PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Museum: restoration of Officers' Quarters building for museum purposes, also reconstruction of entrance road, including bridge, and other improvements.

Glacier National Park

SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Warden's Cabin: construction completed.

Storehouse: construction completed.

Jasper National Park

1. RELIEF ACT, 1935—

(Period, January 1 to March 31, 1936)

Permanent Park Residents—

Pyramid Lake Road: improvement and widening.

Jasper Townsite: improvement of streets and boulevards.

Forest Trails: renewing bridge over Miette river on Whistler Mountain trail.

General: stripping and preparing gravel pit at Cabin creek for summer gravel supply.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Banff-Jasper Highway (Jasper end): clearing, 9.38 miles; grubbing, 8.75 miles; grading, 10.21 miles; surfacing, 6 miles; bridges, 4; culverts, 57.

Miette Hot Springs Road: widening, 4.13 miles; surfacing, 2.85 miles.

Jasper-Edmonton Road: widening, 1.11 miles; surfacing, 2.02 miles; culverts, 3.

Jasper-Yellowhead Road: clearing, 0.23 mile; grading, 3.60 miles; culverts, 4.

Portal Creek Bridge: construction, reinforced concrete balustrade and approaches.

Maligne Canyon-Medicine Lake Road: clearing, 1.80 miles; grubbing, 2.1 miles; grading, 1.66 miles; culverts, 30.

Cemetery Road: construction.

Superintendent's Residence and Garage: construction (75 per cent completed).

Eastern Entrance Building and Caretaker's Cottage: (construction completed).

Miette Hot Springs Development: clearing site and building foundation for bathhouse.

Aeroplane Landing Field, Henry House: improvement.

Jasper Townsite: automatic telephone system (capacity, 100 telephones); re-roofing Government garage with fireproof shingles; water and sewer extensions; improvement of streets and sidewalks.

Patricia Lake Auto Campsite: general development, including improvement of sewer system and installation of electric pumping plant for water supply.

Forest Trails: Upper Miette Valley trail, (Snaring and Snake Indian Rivers trail development) construction, 10 miles, and slashing, 1.33 miles; Buffalo Prairie trail, new bridge over Hardisty creek; general trail maintenance and improvement.

Wardens' Cabins: one standard cabin, Adolphus Lake area; and three stop-over cabins, (1) northwest end of Medicine lake, (2) west fork of Whirlpool river, and (3) Miette valley.

Forest Telephone Lines: line connecting East Boundary line with Miette Hot Springs, 9.8 miles; extension of Sunwapta Falls line, 10 miles; improvement of Athabaska Falls line.

Kootenay National Park

PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Banff-Windermere Highway: improvement and widening.

Radium Hot Springs: construction community building at campgrounds; parking area; sewer system and disposal plant; tennis courts (2).

Forest Trails: reconstruction Floe Lake-Wolverine Pass trail, 2.5 miles; construction Simpson River trail, 5 miles; trail from a point between the campgrounds (Red Rock) and the swimming pool at Radium Hot Springs, with bridge over Sinclair creek, to connect with Banff-Windermere highway, 400 yards.



Concrete bridge at Vermilion River Crossing, looking south. Kootenay National Park.

Mount Revelstoke National Park

SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935.

Revelstoke Mountain Road: improvement and widening.

Point Pelee National Park

PUBLIC WORKS CONSTRUCTION ACT, 1934—

Community Shelter Building: construction completed.

Prince Albert National Park

1. RELIEF ACT, 1935—

(Period, January 1 to March 31, 1936)

Single, Homeless Men—

Camp Establishment: completing construction 100-man camp, including bunkhouses, laundry, barn, refrigerator and other related works.

Prince Albert Park Highway: Winter road maintenance, including snow-ploughing and erection of snow-fences, also bridge reinforcement work.

General: ditching; logging; cutting and storing ice; repairing buildings; constructing hay shed; cutting stove wood; storm sewer extensions (Waskesiu); sinking wells at Meridian cabin and McKenzie creek; completing survey and clearing location of road to Heart Lakes portages from Waskesiu; underbrushing and construction of fireguards; cutting and peeling telephone poles; hauling and storing building stone.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Narrows Road: grubbing, 3.37 miles; grading, 4.19 miles; surfacing, 2 miles; tote road constructed, 2 miles; bridges, 2; construction of gravel trail, 0.75 mile.

Rabbit-Meridian Road: surfacing, 6.44 miles; general maintenance.

Prince Albert Park Highway: maintenance and improvement, also renewal of bridges and culverts.

Building Construction: museum building; addition to Administration building; caddy-house; completion of golf club-house and staff quarters.

Recreational Areas: golf course—improvement of first 9 holes and construction of second nine holes; also improvement of existing tennis courts and construction of additional tennis courts.

Main Campgrounds: improvement and drainage.

Waskesiu Subdivision: storm sewer construction, and extension of streets and sidewalks.

General: construction of wardens' cabin (Rabbit district); improvement of trails; fencing Animal Enclosure; completion of recreational grounds and children's playgrounds; landscaping and general improvement of grounds around Government buildings; beach improvement.

Riding Mountain National Park

1. RELIEF ACT, 1935—

(Period, April 1 to June 30, 1935)

Single, Homeless Men—

Park Development: slashing and brushing; cutting defective timber for firewood; reclamation of swampy areas; beach improvement; maintenance and improvement of Park roads, also townsite streets and sidewalks; construction of boat stalls at main beach; stone arch bridge over Bogey creek at golf course; clearing location for secondary road to Crossley Lake campsite; operating gravel-crushing plant; making and laying concrete paving blocks; improvement of golf course.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Dauphin Road: clearing, 0.70 mile; grubbing, 1.70 miles; grading, 9.8 miles; surfacing, 23.9 miles; bridges, 3; culverts, 54.

Norgate Road: re-grading and widening, 4 miles; surfacing, 3.5 miles; culverts, 1; maintenance, 18.5 miles.

Lake Shore Road: revision and construction.

Crossley Lake Road: grading and surfacing.

North Shore Road: grading, 2.46 miles.

Wasagamung Townsite Development: landscaping; repairing streets; completion of riprapping and grading started under relief work; clearing, grading and surfacing streets in new subdivision.

Recreational Areas: Golf Course—general construction and improvement, including extension of water supply system; clearing; sodding; construction of

golf professional's office; landscaping; construction of two additional tennis courts; improvement of main campgrounds, including construction of road along lake; development of picnic grounds on Dauphin and Norgate roads.

Building Construction: staff quarters, fire-hall, garage, horse barn, addition to golf club-house, cabin at buffalo enclosure.

General: repairing breakwater, completing bandstand, fencing new buffalo pasture; trail construction and improvement.

Waterton Lakes National Park

1. RELIEF ACT, 1935—

(Period, January 1 to March 31, 1936)

Permanent Park Residents—

Akamina Road: improvement and widening.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Belly River Road: grubbing, 1.72 miles; grading, 6.99 miles; surfacing, 7.27 miles.

Administration Building: construction (nearing completion).

Government Garage, extension: construction completed, except for concrete flooring.

Campgrounds: community building at Main campgrounds and also at Cameron Lake (latter nearing completion).

Recreation Grounds: rest room building.

Golf Course: completion of second 9-hole course and installation of piping for water supply, including pump and pump-house.

Yoho National Park

1. RELIEF ACT, 1935—

(Period, January 1 to March 31, 1936)

Permanent Park Residents—

Yoho Road: improvement.

Emerald Lake Road: improvement and widening.

General: snow removal from townsite streets and sidewalks and ploughing main highways of snow.

2. PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Stephen-West Boundary Road (Park section—Trans-Canada Highway): improvement and widening.

Yoho Road: improvement and widening.

Emerald Lake Road: improvement and widening.

Kicking Horse Campgrounds: community building (nearing completion).

Field Townsite: blacksmith's shop (nearing completion).

Historic Sites

PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

Fort Lennox, P.Q.: preservation and repair work.

Fortress of Louisbourg, N.S.: restoration, preservation and improvements.

Fort Langley, B.C.: repairs and improvements.

Fort Chambly, P.Q.: museum building and improvements.

Works carried out with funds from Department of the Interior appropriations, but supervised by other departments of Government:—

By Department of Railways and Canals

1. Fort Prince of Wales: Preservation and repair.

By Department of Public Works

2. Fort Beausejour, N.B.: Museum building and improvements.
Fortress of Louisbourg, N.S.: Museum building and Caretaker's quarters.

By Department of National Defence

3. Prince of Wales Martello Tower, Point Pleasant Park, Halifax, N.S.: repairs to outer walls and interior of existing structure.



New Museum Building, Fort Beauséjour National Park.

Golden-Revelstoke Highway

PUBLIC WORKS CONSTRUCTION ACT, 1934, AND SUPPLEMENTARY PUBLIC WORKS CONSTRUCTION ACT, 1935—

1. East Leg, Donald to Boat Encampment: Completed section (62 miles): maintenance and improvement. New Work: clearing, 8 miles; grubbing, 12·8 miles; grading 14·2 miles; surfacing, 10·2 miles; tote road, 5·5 miles; culverts constructed, 99; Cummins Creek bridge, completed; Sullivan River diversion, continuation of excavation for new channel and construction of diversion crib; Columbia River bridge, concrete abutments completed.

(Period, July 8, 1935, to March 31, 1936)

2. West Leg, Revelstoke to Canoe River: clearing, 10·58 miles; grubbing, 8·44 miles; grading, 16·62 miles; re-grading, 25·75 miles; surfacing, 16·85 miles; ditching, 10·83 miles; bridges, 3; culverts, 53.

PARK ROADS, TRAILS, AND TELEPHONE LINES

In recognition of the requirements of modern motor travel, the National Parks Service many years ago inaugurated a good roads program with the definite objective of making the scenic beauties of the parks accessible to the public. With this end in view, all-weather standard roads have been constructed throughout the National Parks System, comprising, as at March 31,

1936, a total in excess of six hundred miles. Roads now under construction include the Banff-Jasper Highway, a thoroughfare of unrivalled scenic attraction along high mountain passes.

During the year under review approximately forty-five miles of new road were constructed to grade, besides a number of bridges, with funds provided under the Public Works Construction Act, 1934, and Supplementary Public Works Construction Act, 1935, exclusive of 35.5 miles on the Golden-Revelstoke Highway which, traversing as it does territory not included within the National Parks System, is treated as a special project. In addition, existing Park roads were improved and maintained, and a considerable proportion gravelled and widened. Revision and improvement of trails and telephone lines also were undertaken.



Golden-Revelstoke Highway (east leg), British Columbia. Section of road at Mile 34.

The total mileage of roads, trails, and telephone lines in the National Parks of Canada is tabulated below:—

MEANS OF TRAVEL AND COMMUNICATION

Region	Roads			Trails	Telephone Lines
	Motor	Secondary	Total		
	(miles)	(miles)	(miles)	(miles)	(miles)
Banff National Park.....	131.56	19.0	150.56	693.50	220
Buffalo National Park.....	2.0	30.0	32.0	57.0	35
Elk Island National Park.....	16.0	2.0	18.0	3.75	.....
Glacier National Park.....	.....	11.50	11.50	108.50	7
Jasper National Park.....	135.79	33.0	168.79	700.0	373
Kootenay National Park.....	63.0	8.0	71.0	126.0	60
Mt. Revelstoke National Park.....	19.0	.....	19.0	35.50	17
Point Pelee National Park.....	7.0	.....	7.0	.....	.....
Prince Albert National Park.....	59.0	.....	59.0	478.0	130
Riding Mountain National Park.....	84.50	2.0	86.50	154.0	171
Waterton Lakes National Park.....	44.45	.....	44.45	234.0	58
Yoho National Park.....	47.25	6.0	53.25	182.0	53
Total.....	609.55	111.50	721.05	2,772.25	1,124

WILD LIFE CONSERVATION

The hunting of wild life in the National Parks of Canada is strictly prohibited, so much so that in the public mind the term "National Parks" is synonymous with "game sanctuaries." The tremendous development that has taken place in Canada during the past fifty years, particularly in the Prairie Provinces, restricted the range of the wild life. The establishment of Banff National Park in 1885, followed by Yoho and Glacier National Parks in 1886, marked the initial step in the creation of the National Parks System, which now embraces nine scenic parks, in addition to three recreational, four animal and two historic parks, and comprises a total area in excess of 12,000 square miles.

Located principally in the provinces of Alberta and British Columbia and embracing territory for the most part mountainous in character, the scenic parks provide sanctuary for many species of big game, notably moose, elk, caribou, deer, Rocky Mountain sheep and goat, the numbers of which have been well maintained and, in several instances, increased as a result of the protection extended to them under Parks regulations. The same is true of the national parks in the provinces of Manitoba and Saskatchewan.

Buffalo National Park and Elk Island National Park are the more important of the four animal parks in Alberta, set apart for the perpetuation of buffalo, elk, and deer, particularly the buffalo. Since the establishment of these fenced reserves, the increase in buffalo has been little short of phenomenal, so much so that the problem now is one of the orderly reduction at a ratio designed to prevent overcrowding of the range. Nemiskam National Park and Wawaskey National Park, also in Alberta, were established for the protection of antelope, a work of conservation that has met with markedly good results.

A number of requests for specimens of Canadian wild life were dealt with during the year. The most notable live shipment consisted of twenty selected buffalo from the herds at Buffalo National Park to the Zoological Gardens at Berlin, Germany.

At Banff National Park in Alberta and also at Riding Mountain National Park in Manitoba, small exhibition herds are maintained in animal paddocks as a tourist attraction. A census of wild animals in these fenced enclosures and in the various fenced animal parks, as at March 31, 1936, follows:

ANIMALS IN FENCED AREAS

Animal	Banff Park Paddock	Riding Mountain Park Paddock	Buffalo Park	Elk Island Park	Nemiskam Park	Total
Antelope.....					350	350
Buffalo.....	32	55	5,584	1,918		7,589
Domestic cattle.....			11			11
Elk.....	28	148	1,445	1,979		3,600
Four-horned sheep.....	6					6
Hybrid (cattalo).....			26			26
Moose.....		7	115	740		862
Mule deer.....		4	1,307	246		1,557
Rocky Mountain goat.....	3					3
Rocky Mountain (bighorn) sheep.....	5					5
White-tail deer.....		4				4
Yak.....	7		40			47
Totals.....	81	218	8,528	4,883	350	14,060

FOREST FIRE CONTROL

There was a total of thirty-seven fires in the National Parks during the fiscal year 1935-36, the most serious occurring in Waterton Lakes Park during the month of August. This fire, which was caused by lightning, started in Montana and crossed the International Boundary into Waterton Lakes Park and was not brought under control before considerable damage had occurred to forest cover.

In Prince Albert and Riding Mountain Parks valuable assistance was rendered by the Royal Canadian Air Force which, by arrangement with the National Parks Service, maintained aerial patrols during the spring and late summer, when the fire hazard was high. By means of these patrols, exact information was obtainable promptly as to the location of any outbreak of fire, which enabled the Parks Service to take effective action for suppression without loss of time and with the damage for the most part limited to grass and scrub timber.

Details with regard to the number and extent of fires in the National Parks, and the cost of extinguishing them, are given in the following table:—

GENERAL FIRES

Park	Fires	Area burned	Cost of extinguishing
	No.	acres	\$
Glacier.....	2	.....	3 50
Jasper.....	4	12 ⁵ / ₈	687 11
Point Pelee.....	1	100	.....
Prince Albert.....	6	543 ¹ / ₂	1,931 42
Riding Mountain.....	10	3,103 ¹ / ₂	780 95
St. Lawrence Islands (Cedar Island).....	1	.....	67 80
Waterton Lakes.....	4	1,440	5,906 53
Yoho.....	2	.....	3 80
Total.....	30	5,199 ⁵ / ₈	9,381 11

RAILWAY FIRES

Banff.....	3	3	10 30
Jasper.....	2	1	2 00
Yoho.....	2	4	14 30
Total.....	7	8	26 60
Grand Total.....	37	5,207 ⁵ / ₈	9,407 71

ARCHITECTURE AND LANDSCAPE

During the year under review building construction was active, a number of important projects having been initiated and carried out with funds provided under the Public Works Construction Act, 1934, and Supplementary Public Works Construction Act, 1935, including works commenced but not completed during the fiscal year 1934-35. In addition to the regular Parks program there was the examination of plans and specifications of buildings for the construction of which permits have been granted to private interests for commercial or residential purposes in the National Parks.

The following are some of the more important projects for which plans and specifications were prepared, revised or checked, under the direction of the Chief Architect of the Branch.

Banff National Park.—Administration building and Post Office; Cave and Basin bathhouse extension; Eastern Entrance buildings; Central garage; Caretaker's residence, also extensions to Upper Hot Springs bathhouse.

Jasper National Park.—Eastern Entrance Caretaker's and Staff quarters; Eastern Entrance Registration building; Superintendent's residence; Fire-hall; Miette Hot Springs development.

Elk Island National Park.—Golf club-house; additions to concession buildings.

Waterton Lakes National Park.—Community shelter; bathhouse extension (men); bathhouse (women); Administration building; Registration building; additions to Government garage and to storage building.

Prince Albert National Park.—Recreation hall; bathhouse and laundry; Office and First Aid building; Ice-house; Sewage Pumping station; Camp buildings for 100 men, including bunk-house, dining hall and kitchen.

Riding Mountain National Park.—Golf Club-house extension; Staff quarters; Fire-hall; Townsite development.

Georgian Bay Islands National Park.—Recreation shelter; Rest Room building.

Fort Anne National Park.—Museum and storehouse.

Fort Chambly Historic Site.—Museum.

PUBLICITY

The development of tourist travel to the National Parks forms the main function of the Publicity Division, and during the past year every effort was made to bring to public attention the recreational and educational advantages of these great national possessions. This work involves not only the furnishing of general and specific tourist information, but also calls for a program calculated to educate the people to the significance of the National Parks, and their value to the country at large.

This is accomplished in many ways, more particularly by public lectures supported by showings of motion pictures and slides; by the loan of films, slides, half-tones, matrices, and stereotypes descriptive of the scenery, recreational facilities and wild life of the parks; by the distribution of prepared press articles, illustrated pamphlets, maps, photographs, and musical compositions based on Park themes; by radio broadcasts, and with the assistance of a corps of voluntary lecturers and writers. Special educational exhibits of mounted wild life specimens, birds, photographic transparencies, framed photographs, oil paintings, and other material also have been used as publicity aids with marked success.

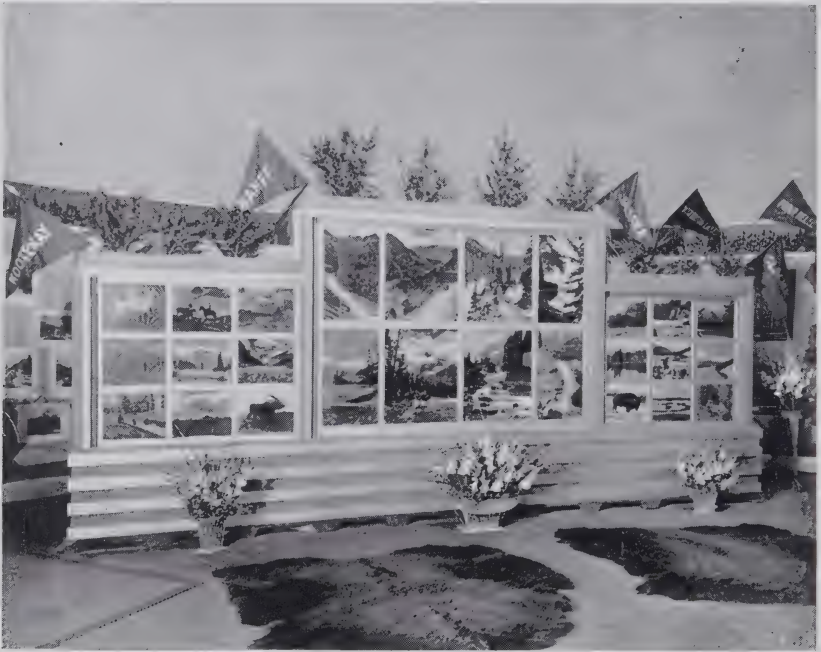
Contacts have been established or maintained during the year with news editors, publishers, travel agencies, motor clubs, boards of trade and other organizations, and individuals engaged in tourist promotion. Publicity material descriptive of the National Parks was furnished whenever required.

As a publicity and educational medium the Publicity Division operates a motion picture library which contains 115 completed subjects, comprising a total of 1,080 prints. All subjects are available in 35 millimetre size, and a considerable number of them also may be obtained in 16 millimetre size. These films, which depict the scenic, recreational, and wild life resources of the National Parks, are of the silent type and were produced, edited, and titled in the division laboratory. They are available (on loan) for showing by organizations interested in wild life conservation and the promotion of tourist travel to the National Parks, including nature study societies, business clubs, boards of trade, universities, schools, and churches.

During the year under review 14,629 feet of negative film and 197,344 feet of positive film were added to the film library, including 40 new prints of

film subjects in 35 millimetre size, and 366 prints in 16 millimetre size. Six new film stories or subjects were produced during the year for showing under the following titles: *Sea Lions of the Pacific*; *Through the Heart of the Rockies*; *Where Fighting Beauties Rise*; *Pilgrims of the Wild* (two reels); *Sunshine and Powder Snow*; *Summer Days at Waskesiu*.

The division experienced a greatly increased demand for films, particularly from the United States. Through the co-operation of various distribution agencies, National Parks films are now in circulation in the United States, Great Britain, France, Austria, Czecho-Slovakia, Holland, Norway, India, Australia, New Zealand, Hawaii, South Africa, and the British West Indies, as well as throughout Canada. Distribution during the last two fiscal years indicates the growing demand for National Parks films, namely: 1934-35, 1,721; 1935-36, 3,293. In addition 113 films were shown on tour, and 1,328 in Ottawa and district.



Section of National Parks of Canada Exhibit at the Canadian National Exhibition, Toronto, 1935.

Arrangements by which National Parks scenic, recreational, and wild life subjects have been adapted to sound and distributed to theatrical exhibitors, have been continued. During the year a new picture, *The Game is Up*, featuring alpine climbing in Glacier National Park, British Columbia, was produced for sound showing. In addition, the following sound film subjects are being shown throughout Canada, the United Kingdom, and other parts of the British Empire, and in the United States: *Grey Owl's Little Brother*, *Let's Go Ski-ing*, *She Climbs to Conquer*, *Grey Owl's Strange Guests*, *Sky Fishing*, *The Return of the Buffalo*.

The division's lantern slide library was particularly active during the past year, no less than 9,475 slides having been loaned, an increase of 4,449 over the previous year. The slide library stock, which contains several thousand subjects depicting the scenery, flora and fauna of the Parks, was augmented during the period under review by 1,126 coloured slides.

A steady demand was experienced for photographic prints descriptive of National Parks scenic, recreational, and wild life subjects, and a total distribution of 11,942 prints of various sizes was made to writers, newspaper services, publishers, and other interested organizations in practically all parts of the world. The above included 11,508 standard prints, 99 special prints, and 335 enlargements. The photographic library was augmented by the addition of 287 new negatives, and 10,620 prints and enlargements.

More than 300 half-tone cuts, stereotypes, line-cuts, and matrices were loaned during the year to editors, publishers, and writers.

An outstanding and distinctive feature of the work of the division was the preparation of press articles descriptive of the beauties and recreational advantages of the National Parks. A number of special articles were written for tourist and vacation numbers of well-known periodicals in Canada and the United States, and many other articles descriptive of the wild life, history, accessibility, and other features of the parks were supplied, on request, to editors, publishers, and writers. Practically all material distributed was accompanied by a suitable selection of photographic prints or half-tones for illustration purposes.

To meet an increasing number of requests for printed literature descriptive of the National Parks, 68,375 copies of publications were printed during the year. These included reprints of the pamphlets *Banff*, *Kootenay*, and *Yoho National Parks*, and *Prince Albert National Park*, both of which were revised and enlarged in scope. A folder map, outlining the main points of interest in Banff and vicinity which are accessible by automobile road, was also issued for distribution at the Banff Information Bureau. Three thousand copies of the Annual Report of the Commissioner of National Parks for the fiscal year 1934-35 were also printed. A total distribution of 55,959 copies of Parks literature and maps was made during the year to tourist bureaus, automobile associations, boards of trade, and other kindred organizations, and approximately 6,500 copies of maps and pamphlets published by private enterprise also were issued.

Three years ago the division adopted the use of music as a publicity measure, and a number of compositions founded on outstanding and distinctive features of Canada's National Parks have been written and made available for distribution in sheet form to bands and orchestras in Canada, the United States, and Great Britain. Two new numbers were written during the past year, viz., *Heart of the Rockies Waltz*, and *Lake Waskesiu Foxtrot*. These are available either as band selections or dance orchestrations. Previously written numbers, *Waltz Yoho* and *International Park March*, have been made available as pianoforte duets. Musical numbers which have been distributed with program notes are now being used by more than fifty bands and orchestras in local and broadcast performances.

The National Parks Service of Canada was again represented at the Canadian National Exhibition at Toronto in August, 1935, and an extensive publicity exhibit, artistically staged, occupied the east wing of the Railway building. The exhibit included mounted wild mammal and bird specimens indigenous to the National Parks, coloured photographic transparencies arranged in specially constructed and lighted cases, framed photographs, sketches, and oil paintings. For the duration of the Exhibition, officers of the Publicity division were in attendance to furnish information, and many inquiries were received from prospective Parks visitors and others interested in the flora and fauna of Canada.

A special exhibit of art photographs of animal wild life was prepared and forwarded to the International Exhibition of Nature Photography held in the British Museum, London, England, in October and November, 1935. The entire exhibit, which received honourable mention, will be further exhibited in Great Britain and Europe. An art photograph exhibition of winter sport subjects also was arranged at Newark, New Jersey, in December, 1935.

REVENUE

Receipts from public utilities and other sources of direct revenue in the National Parks of Canada, including the Migratory Birds Convention administration, amounted to \$218,167.55 for the fiscal year 1935-36 compared with \$219,737.33 for the preceding twelve months.

BANFF NATIONAL PARK

During the year under review tourist returns for Banff National Park show a slight increase in the number of visitors, compared with the previous year. Banff, Kootenay, and Yoho National Parks, known as the "Three-Park Unit," are connected by a system of standard Park highways, and in the compilation of tourist figures a proportion of eastbound motor traffic via Kootenay and Yoho Parks properly may be credited to Banff Park. The total number of tourists visiting Banff Park during the fiscal year 1935-36, on this basis, was 143,162, compared with 142,774 for 1934-35, an increase of 388, as shown in the following table:—

VISITORS TO BANFF NATIONAL PARK

Route	Motor vehicles		Passengers	
	1935-36	1934-35	1935-36	1934-35
WESTBOUND				
Via Banff Park (Eastern Gateway Entrance).....	33,038	32,752	109,098	106,944
EASTBOUND				
Via Kootenay Park (Radium Hot Springs Entrance)	4,254	4,728	13,659	15,334
Via Yoho Park (Leanehoil Entrance).....	1,565	1,606	4,405	4,496
Tourists for Banff by rail—East and West (estimated)			16,000	16,000
Totals.....	38,857	39,086	143,162	142,774

Information Bureau.—A total of 19,955 inquiries of all descriptions was dealt with during the tourist season, which opened May 17 and closed September 30, 1935. The service rendered by the bureau has been of great assistance to tourists and persons interested in the park.

Public Health.—The health of the community was good and no cases of disease of a serious nature were reported. Sanitary ordinances were strictly enforced and all localities frequented by the general public subjected to constant supervision. Samples of water from all supply sources were tested periodically and appropriate measures taken to ensure purity. The annual tuberculin test of milch cows was conducted by officers of the Health of Animals Branch of the Dominion Department of Agriculture. A total of 212 cows was examined and granted a clean bill of health.

Bathhouses.—The total paid attendance at the Cave and Basin bathhouse was 23,252 bathers. This is a decrease compared with the previous year, which may be attributed to the fact that the building is being remodelled. An important development consisted of piping the flow of sulphur water from the Middle Springs to augment the flow at the Cave and Basin bathhouse and thus increase the turnover in the swimming pool, and also serve newly installed showers in the bathhouse.

The new bathhouse at Upper Hot Springs was well patronized again this year. A paid attendance of 54,005 bathers was recorded compared with 46,578 for the corresponding period last year. A number of improvements and additions were made to the buildings during the year.

Campgrounds.—The number of campers at Banff Park during the year indicates the continued popularity of this class of accommodation. A total of 4,677 motor vehicles and 17,234 individuals was accommodated at the various campgrounds in the park, compared with 5,173 motor vehicles and 18,569 campers for the corresponding period last year. The campground at Tunnel mountain led all others again in numbers, with 4,016 motor vehicles and 15,059 campers. Attendance at the various campgrounds represents a total of 33,023 person-days or an average stay of approximately two days per person.

Licences and Permits.—A total of 14,848 licences and permits was issued during the fiscal year 1935-36, compared with 14,696 for the previous year, as follows: Licences—transient automobile (including camping privileges), 13,349; permanent Park resident automobile, 321; chauffeur, 198; hotel and boarding house, 164; trucking, 137; dog, 111; auto livery, 78; auto transfer, 58; business, 54; guides, 41. Permits—camping, 90; grazing, 12; miscellaneous licences and permits, 83. In addition, thirteen building permits were issued for an estimated property value of \$20,300.



Castle Mountain at junction of Lake Louise Road and Banff-Windermere highway, Banff National Park.

Mosquito Control.—The work of mosquito control was continued, operations being carried on from April 18 to August 13. Oil was distributed to the extent of 2,817 gallons during this period.

Roads and Bridges.—Regular maintenance crews were employed throughout the season on main Park highways. Dust-layer oil was spread on all important roads and also on streets in the town of Banff, approximately 160,000 gallons being used.

Trails and Trail Bridges.—Park trails were maintained in good condition. The Cascade trail was improved over a distance of three miles to permit of its use for tractor equipment in case of fire or other emergency.

Forest Telephones.—The forest telephone system, comprising 220 miles of line, was kept up to standard. The section from Snow pass to the Clearwater river was rebuilt during the season.

Fire Control.—No general fires were reported. Three railway fires occurred, the largest of which covered an area of about three acres. Apart from the burning of grass and willow brush, no damage was done.

Banff Museum, Zoo and Animal Paddock.—A total of 17,905 persons visited the museum during the year. The zoo, as usual, attracted large numbers of people. The animals and birds on exhibition included the following: polar bear, 1; grizzly bear, 2; cinnamon bear, 1; black bear, 2; timber wolf, 4; coyote, 1; badger, 1; Canada lynx, 1; racoon, 1; mountain lion, 2; mink, 4; marten, 3; porcupine, 3; ermine, 1; muskrat, 1; great-horned owl, 2; Canada goose, 12; golden eagle, 3; crow, 2; fantailed pigeon, 6. At the animal paddock, 36,326 visitors viewed the animals on exhibition, comprising the following: buffalo, 32; elk, 28; Rocky Mountain sheep (bighorn), 5; Rocky Mountain goat, 3; four-horned sheep, 6; yak, 7.



Top of the Needles, Lake Louise, looking north towards Skoki Valley.
Banff National Park.

Donations of Wild Life.—Animals donated during the year were as follows: one timber wolf, reared at the Banff Zoo, to the Calgary Zoological Society; two pairs of beaver to the Royal Zoological Society of London, England; two buffalo to the city of Lethbridge in connection with its Jubilee celebration.

Game.—Careful observation indicates a decrease in numbers of Rocky Mountain sheep, Rocky Mountain goat, and mule deer. On the other hand, elk appear to be maintaining their number, while moose have increased. Of the fur-bearing species, marten are plentiful, and beaver quite numerous.

Feathered life in the park is a source of much interest to visitors. Birds which were frequently observed include the following: pileated woodpecker, black-headed jay, grey ruffed grouse and spruce partridge, also Clarke's nutcracker, snow bunting, red-breasted nuthatch, mountain chickadee, and

mountain bluebird. Large flocks of mallard duck frequented open water in the park during the autumn and a number remained throughout the winter on the open water of Vermilion lake near the warm spring on the West road.

Fish Culture.—A total of 1,182,595 eyed eggs, advanced fry, and fingerlings were distributed in Park waters from the Banff Hatchery, as follows: cutthroat trout, 770,160; speckled trout, 272,990; salmon trout, 89,445; cutthroat trout eggs, 50,000.

Distribution in provincial waters totalled 1,442,720, as follows, speckled trout, 570,000; rainbow trout, 447,520; cutthroat trout, 425,200; making a grand total for the 1935 season of 2,625,315. It is worthy of note that the transfer of mature cutthroat trout from Herbert lake to lake Louise has had a beneficial effect on fishing in the latter lake, and added greatly to the attraction of this area for anglers. Much interest was shown by British overseas visitors in stream and lake fishing, but particularly in the stream fishing.

Recreation.—The annual winter carnival was held during the first week of February. The program arranged for the occasion was an exceptionally good one. The annual bonspiel of the Banff Curling Club was held during the week commencing February 3, 1936, when many rinks from outside points attended.

The growing popularity of ski-ing in Banff Park in recent years was well maintained, notably in the mount Norquay area. During the ski-ing season special week-end rates were given by the railway and advantage was taken of these by from eighty to ninety skiers from Calgary every week.

YOHO NATIONAL PARK

Continued improvement is shown in tourist travel to Yoho National Park. Prior to the fiscal year 1934-35 Yoho Park was given no credit for the large number of tourists who visited the park from Banff and eastern points on trips to the Yoho valley and Emerald lake and returned again without proceeding to Leanoil to register. Whereas the preponderance of traffic from the east is composed of motor buses with a large seating capacity, it can be assumed for the purpose of calculation of gross number that the average for all motor vehicles was four persons per unit. By means of a specially designed automatic traffic device, a total of 9,660 cars was recorded, which, on the basis of an average carrying capacity as above stated, represents a total of 38,640 passengers.

At Leanoil gateway, western entrance to the park, actual registrations were as follows: Westbound traffic, 3,418 cars carrying 9,716 passengers, compared with 3,523 cars carrying 10,268 passengers for the corresponding period last year. Eastbound traffic: 2,348 cars carrying 6,607 passengers, as against 2,409 cars carrying 6,744 passengers, in 1934-35. It is estimated that another 2,000 people visited the park by rail making a grand total of 56,963 visitors.

Campgrounds.—Construction of the Community building at the Kicking Horse campground, begun in 1934, was completed during the fiscal year 1935-36; likewise the blacksmith's shop in Field. It was noted that the new Community building added greatly to the comfort of the campers. A total of 934 motor vehicles carrying 3,075 persons occupied the various campgrounds during the tourist season, the following return indicating the number at each: Kicking Horse campground, 815 motor vehicles and 2,779 campers; Field campground, 27 motor vehicles and 80 campers; Chancellor Peak campground, 92 motor vehicles and 216 campers. The Mount Stephen auto bungalow camp was extremely popular with tourists and full to capacity for the greater part of the season.

Roads and Bridges.—The Kicking Horse trail, the section of the Trans-Canada Highway through Yoho Park, was extensively improved during the year. This consisted of widening to present Park standard of 24 feet preparatory to hard surfacing, and general maintenance of the road in first-class condition. Good progress also was made on branch roads, notably the Yoho road and Emerald Lake road, in the work of widening to standard width, elimination of curves, and revision. The archway spanning the main highway where it crosses Divide creek, constructed during the year 1934, was completed early in the spring of 1935, by affixing thereto the bronze plaques bearing the Coats of Arms of Alberta and of British Columbia, donated by the respective governments of the provinces concerned.



Mount Stephen and natural bridge over Kicking Horse River.
Yoho National Park.

Trails.—Major improvements were undertaken on a number of Park trails. The Beaverfoot trail was relocated between Mile 3 and Mile 4 and widened and improved from the main highway to Ice River cabin, a distance of ten miles. A short piece of trail was cut and graded from Lone Duck lake to Emerald Creek bridge, a distance of two miles. All other trails were maintained.

Telephone System.—The forest telephone system was improved during the year by an extension of the Beaverfoot Valley line from Tallon creek to the Ice River cabin, a distance of five miles. General maintenance of all Park lines was carried out by the wardens.

Wardens' Cabins.—A patrol cabin was constructed near the terminus of the Yoho road. The building, which is provided with telephone connections, is intended for the use of the district warden during patrol of this section of the park.

Fire Control.—There were only four forest fires during the year, two general and two railway. Fortunately no damage resulted from these fires, which were quickly detected and suppressed.

Game.—Patrols were made regularly by the wardens covering all sections of the park and no violations of the game regulations were reported. Game in the park appears to be in good condition. Moose were plentiful, the natural increase being well maintained. Deer were scarce but numbers of this species may be found, principally in the vicinity of Leachcoil and in Beaverfoot valley. Elk made their appearance in the summer, coming generally from Banff Park, but disappeared east again in the winter. Rocky Mountain goat, black bear, and marten are quite numerous and increasing. A few beaver have been noticed on the upper Ice river, but otter were rarely seen. There are not many predatory animals in the park, coyote being the most plentiful species, although their numbers are not great. Twelve coyote were destroyed by the wardens during the year.

KOOTENAY NATIONAL PARK

As a part of the "Three-Park Unit" Kootenay Park enjoys considerable tourist traffic via Banff and Yoho Parks, and during the period under review a total of 12,569 motor vehicles carrying 40,447 passengers, compared with 13,794 motor vehicles carrying 44,747 passengers, entered the park. Figures for 1935-36 are made up as follows: eastbound traffic, 5,671 motor vehicles and 18,211 passengers; westbound traffic, 6,898 motor vehicles and 22,236 passengers. In computing westbound traffic, as aforesaid, it should be noted that the figures include 5 per cent of Banff Park's westbound traffic, namely 1,632 motor vehicles and 5,224 passengers, this number being a conservative estimate of tourists who entered the park at Vermilion pass and returned east again without registering at Radium Hot Springs. A feature of these figures is that while the total number of visitors during 1935-36 shows a decrease compared with the previous year, there actually was an increase in United States tourists of 322 motor vehicles and 1,024 passengers. Improvement of the main entrance road to Radium Hot Springs via Kingsgate should do much to stimulate tourist travel from south of the International Boundary.

The swimming pool at Radium Hot Springs bathhouse was again the principal attraction for a large number of visitors to the park, with a total of 17,349 bathers, compared with 18,095 for the corresponding period in 1934-35.

Campgrounds.—The campground at Sinclair Canyon was open from May 27 to September 30, 1935, and during that period 1,190 motor vehicles and 2,554 campers were accommodated, a total of 4,800 person-days, or an average stay in camp of approximately two days per person. All campsites in the park were maintained in good order and facilities at Sinclair Canyon (Red Rock) campground near Radium Hot Springs were greatly improved by the construction of a community shelter, completed in time for the opening of the travel season.

Townsite Development.—The appearance of the townsite was improved by the construction of underground conduits for the reception of electric power lines, and the removal of poles from the streets. New lighting standards of piping were erected at necessary points, and the lighting at the swimming pool was improved by the erection of new standards and better distribution of lamps. Two tennis courts were laid out and completed alongside Sinclair creek at Radium Hot Springs. A new sewer also was constructed during the year.

Roads and Trails.—The Banff-Windermere road, main highway through the park, was maintained and improved. At Radium Hot Springs the road from the Entrance Gateway to beyond the campgrounds was widened and the material taken out during these operations used as "fill" in the construction of a parking area near the townsite.

Considerable trail work was undertaken. The trail leading to Floe lake via Wolverine pass, one of the most beautiful spots in the park, was reconstructed for a distance of 2.5 miles, completing a circle-tour trail which will prove most effective in fire control, and attractive to tourists and trail riders. Relocation of the trail up Simpson river also was undertaken and construction completed for a distance of five miles.

Fire Control.—The careless practice of many motorists of discarding burning cigarette butts was responsible for a number of fires. Fortunately the warden staff was successful in suppressing these outbreaks before any serious damage had occurred.



Banff-Windermere Highway, bridge at Kootenay River Crossing.
Kootenay National Park.

Game.—The game situation appears to be satisfactory. Moose, elk, and Rocky Mountain sheep were numerous and apparently increasing, but white-tail deer were observed in smaller numbers. Bear were quite plentiful in the autumn.

JASPER NATIONAL PARK

Jasper National Park registered a slight gain in tourist travel, with a total of 10,981 visitors during 1935-36 compared with 10,757 for the previous year, an increase of 224. Grading operations on the Jasper-Edmonton Highway probably account for the decrease of motor travel by some 201 cars, compared with the 1934 season. On the other hand, the number of visitors by rail showed an increase from 7,851 to 8,721.

Jasper Townsite.—The streets of Jasper were maintained in good condition. Connaught Drive from the railway crossing to Balsam avenue was given a special treatment of liquid asphalt, which has provided at small cost a hard and dustless surface. Boulevards were improved and extended. Eleven new connections were made to the townsite water system, and there are now 305 connections to the permanent water supply. The electric light and power service was maintained and 8 new establishments connected to the system, making a total of 351 connections at the close of the fiscal year. The addition of 65 new sewer connections brings the total to 231. A new automatic telephone system was installed in Jasper during the year.

Licences and Permits.—A total of 1,624 licences and permits was issued during the fiscal year 1935-36, compared with 1,564 during 1934-35, an increase of 60. These included transient automobile licences, 592; yearly automobile licences (Park residents), 286; chauffeur licences, 112; business licences, 80; camping permits, 89; building permits, 35; timber permits, 60; guide licences, 31; dog licences, 71; sundry others, 268—total 1,624.



Mount Kerkeslin and Athabaska Falls. Jasper National Park.

Roads and Bridges.—All roads in the park were maintained in good condition during the season. Roads on which maintenance work was done include Maligne Canyon, Medicine Lake, Edith Cavell, and Pyramid Lake. A dressing of road oil was applied to a portion of the Edith Cavell road. Work also was completed on a reinforced cement balustrade on the newly constructed Portal Creek bridge.

Campgrounds.—Figures for the four campsites were as follows: Cottonwood Creek—125 motor vehicles and 442 campers; Miette Hot Springs—104 motor vehicles and 534 campers; Medicine Lake—30 motor vehicles and 81 campers; Patricia Lake—21 motor vehicles and 62 campers: a total of 280 motor vehicles and 1,119 campers, representing 6,563 person-days or an average stay of slightly under six days each.

Patricia Lake campground is now fully equipped with electric light, water, and sewers. Cottonwood Creek campground also is suitably equipped and both campsites were well patronized. Miette Hot Springs campground was under construction during the summer months and considerable stumping, clearing, and levelling were accomplished. Five blocks were cleaned up for camping and cross streets cut and graded; a temporary water pipeline was installed and a trench made for permanent piping from a reservoir capable of storing about 30,000 gallons of water for domestic use.

New Buildings.—A new registration building and a caretaker's cottage were erected during the year at the eastern entrance to the park on the Jasper-Edmonton Highway. The construction of this building will do much to facilitate the work of recording motor traffic. There also was undertaken the construction of a residence and garage for the Park Superintendent which, at the close of the fiscal year under review, was nearing completion.

Trails.—Ten miles of standard pack trail were completed along the Upper Miette valley. This trail will eventually open up virgin territory traversed by the Snaring and Snake Indian rivers. Another trail was constructed from the Upper Sunwapta falls to the lower fall, a distance of a mile, making accessible to tourists much beautiful country. A new trail bridge also was built over Hardisty creek on the Buffalo Prairie trail. Existing trails and bridges were maintained and improved. Protective railings were constructed at the Upper Sunwapta Falls canyon and at points of danger at Athabaska falls.

During the season forty parties, comprising a total of 111 persons, registered before starting on trail trips through the park.

Forest Telephone System.—Forest telephone lines were maintained and a new line was constructed from Pocahontas to Miette Hot Springs, a distance of 9·8 miles. The Sunwapta Falls line was extended a distance of 10 miles to serve construction camps on the Banff-Jasper highway. The Athabaska Falls line also was much improved and the elimination of twenty-one road crossings and the resetting of poles along the Jasper-Pocahontas line were carried out during the season.

Fires.—There were no fires in Jasper townsite during the year. Four general forest fires were suppressed, the largest outbreak occurring at Caledonia lake, and resulting in the destruction of about nine acres of second-growth pine. The remainder were brought under control before any serious damage was done. There were no railway fires.

Wardens' Cabins.—A cabin of standard Park construction was erected at mount Robson for use during patrols in the Adolphus Lake area. Shelter cabins also were constructed at the northwest end of Medicine lake, at the west fork of Whirlpool river, and at the Upper Miette valley. These cabins are designed to provide shelter for wardens during winter patrols.

Game.—During the summer there was a decrease in the number seen of Rocky Mountain sheep, Rocky Mountain goat, and deer. All other species of game animals appear to be thriving, and the increase in the number of elk is apparent. Caribou too give evidence of being on the increase. Black and brown bear are particularly plentiful. Fur-bearing animals, notably beaver

and marten, are increasing. Mink are not plentiful but they may be found in almost every district in the park. Muskrat are not numerous. Of game birds in Jasper Park partridge, grouse, and ptarmigan are seen in small numbers.

The range of the cougar does not naturally extend to Jasper Park but some have in recent years migrated from the region to the west. To control these, coon dogs have been utilized and this plan has met with considerable success in ridding the park of a number of cougar.

Fish Culture.—A biological survey of the principal waters of the park was made by Dr. C. M. Mottley, of the Biological Board of Canada, during the summer of 1935 as the first step in the program for stocking Park waters.

Good sport was enjoyed in the park by anglers during the fishing season. Amethyst lakes were opened to fishing for the first time and satisfactory catches of Kamloops trout were reported. Maligne lake continued to enjoy its popularity as a fisherman's paradise.

There was no distribution of fish fry in Park waters during 1935 but, following Dr. Mottley's recommendation, the question of stocking a number of lakes with rainbow trout is receiving attention.



Fishing on Maligne Lake at Narrows. Jasper National Park.

Recreation.—Jasper Park offers excellent opportunities for recreation and sport, including golf, tennis, fishing, and swimming, also trail riding and hiking in summer. Ski-ing is a popular pastime in winter, while the snowcapped mountains offer a perpetual challenge to the alpinist.

WATERTON LAKES NATIONAL PARK

(Canadian Section, Waterton-Glacier International Peace Park)

A noteworthy increase in the number of visitors to Waterton Lakes Park featured the activities of the year under review. Tourists of Canadian origin led with 40,019, compared with 31,282 for 1934-35; United States and overseas, 7,758, as against 5,483. This makes a total of 47,777 visitors to the park during the fiscal year 1935-36, compared with 36,765 for the previous year, an increase of 11,012, or approximately 30 per cent.

Townsite of Waterton Park.—All streets were maintained in good order and treated with two applications of dust layer oil. The laying of the flagstone sidewalk on the east side of Waterton avenue was completed. The construction of a new Administration building was begun and the work was nearing completion at the end of the fiscal year. The Government garage was enlarged and improved. Two business premises and one residence were erected.

Information Bureau.—This office was opened for the transaction of Government business during the tourist season, June 15-September 15. Inquiries dealt with numbered 7,543, compared with 6,701 for the corresponding period in 1934. This total was made up as follows: Canadian, 3,924; United States, 1,821; overseas, 29; telephone, 234; miscellaneous, 1,535.

Campgrounds.—Waterton Park campsite was further improved during the year by the construction of a community shelter building. A similar building also was erected at Cameron Lake campground. The record of campers at Waterton Park campground showed a total of 1,757 persons registered. Their combined occupancy of the campgrounds totalled 4,355 person-days, or an average of $2\frac{1}{2}$ days per person. Motor vehicles numbered 387.



Belly River Highway, looking south, Mounts Richards and Vimy in background.
Waterton Lakes National Park.

Roads and Bridges.—New road work was confined to continuation of construction of the Belly River Highway, which was completed with the exception of approximately 2.5 miles of surfacing. Park roads were repaired and resurfaced where necessary, and the Main Entrance road, in addition, received two applications of dust layer oil from Waterton bridge to the townsite. All that section of the Pincher Creek road from the Fish Hatchery to the Registration Office also was oiled on two occasions. Some revision and widening was undertaken. The Akamina and Pass Creek roads were maintained, bridges inspected, and some redecking carried out.

Wardens' Cabins.—A new log cabin was constructed at Red Rock canyon for use of the wardens on patrol work.

Trails and Telephones.—All Park trails and forest telephone lines were maintained in serviceable condition. A small bridge over Pass creek was constructed on the South Kootenay Pass trail, and 2.5 miles of telephone line from a point near Pass Creek cabin to the vicinity of the Horseshoe basin were relocated.

Grazing.—A total of 1,921 head of live stock was grazed under permit, an increase of 119, compared with figures for 1934-35.

Farming.—There were harvested 75 tons of hay, of which 65 tons were baled and stored, and 8 tons of green feed. Seven acres of timothy sod were broken and sown to oats.

Fish Culture.—During the fiscal year 1935-36 the following distribution of fry was made from the Waterton Fish Hatchery:—

In Park waters: cutthroat trout, 136,000.

In Provincial waters: rainbow trout, 684,694; cutthroat trout, 271,230.

Combined total, 1,091,924 fish fry.

Fishing in Waterton lake was improved during the season of 1935 although no catch of great lake trout of over twenty-five pounds weight, was reported. Angling in Park streams was popular and several good catches of rainbow and cutthroat trout were reported in Cameron, Bertha, and Alderson lakes. On the whole sport was good and Waterton Lakes Park maintained its popularity as a fishing resort.

Game.—Mule deer continue to be numerous and elk are increasing. The latter are to be found in the Belly River, Crooked Creek, Stoney Creek, and Horseshoe districts, and sometimes on Pass creek. Rocky Mountain sheep and goat also are plentiful. Of the fur-bearing species, beaver, ermine, mink, marten, muskrat, and rabbit are quite numerous. Some predatory animals are to be found in the park, but not a great many, coyote being the most frequently seen. Wolf were scarce. Game birds, notably grouse and prairie chicken, are quite plentiful.

Fires.—Five fires occurred during the season, three of which were suppressed before any damage resulted. The most serious fire was caused by lightning on Boundary creek south of the International Boundary. This developed a serious situation when the fire got beyond control and swept over the boundary on the afternoon of August 10. However it was controlled and held the same afternoon by the Park wardens.

Recreation.—Fishing probably ranks as the major sport in Waterton Lakes Park. Other diversions, however, include golf, tennis, swimming, boating, trail riding, and hiking, and, in winter, excellent ski-ing. There is also a children's playground fully equipped with devices for their enjoyment.

GLACIER NATIONAL PARK

The tourist situation is not an important factor at present in Glacier National Park, there being no adequate accommodation, but the park continues to appeal to the mountain climber and the lover of untamed Nature. The park has no motor roads and remains inaccessible except by rail. Moreover, as there is no resident Superintendent (the work of supervision being carried on from Field, B.C., headquarters of Yoho National Park) there is no record of the number of tourists who may have visited the park during the year under review. An estimate of 1,000 persons is given as a conservative figure.

During the season the British Columbia Mountaineering Club held a summer camp at Glacier, camping for two weeks on the site of old Glacier House. Members of the club did a considerable amount of climbing and reported how great was their enjoyment of the exhilarating hikes along the mountain trails. Individual tourists and mountain climbers included visitors from England, Australia, Russia, and the United States, a number of these making climbs of the higher peaks, notably, Sir Donald, Terminal peak, Eagle peak, and mount Tupper. One party of four visited the famous Glacier Circle, climbing the peaks of the Dawson range, an itinerary exacting enough for the most vigorous and experienced of climbers.



Through the forest to Nakimu Caves. Glacier National Park.

Park activities during the year included fire prevention, game protection, improvement and extension of forest trails, reconstruction of trail bridges, erection of a wardens' cabin, and maintenance.

As a game sanctuary Glacier National Park is ideal by reason of its isolation. Bear (black, brown, and grizzly), Rocky Mountain goat, caribou, and many species of the small fur-bearing animals such as marmot, porcupine, and squirrel, are numerous. In recent years moose have been observed in the Beaver River valley and a number apparently have wintered there during the past two years. Beaver and marten also are fairly plentiful in this section of the park. Of feathered life, Franklin and blue grouse are most in evidence, while mountain birds, notably Hermit thrush, the Canada jay, and Steller's jay, are normally plentiful.

MOUNT REVELSTOKE NATIONAL PARK

Many tourists from the Pacific Coast districts, both in Canada and the western United States visit the Mount Revelstoke National Park but, owing to lack of a through highway, visitors from eastern points are not numerous. It is anticipated, however, that completion of the Golden-Revelstoke section of the Trans-Canada highway, now under construction, will witness a great increase in tourist travel to the park.

There is no resident superintendent at Mount Revelstoke Park, the work of administration being carried on from Field, headquarters of Yoho National Park, and consequently there is no registration of visitors. However, at the lookout station near the summit of mount Revelstoke, tourists may enter their names in a register kept there for that purpose. As this is a voluntary registration, a great proportion of visitors fail to register, probably only one in every four persons doing so. On the basis of a total registration during the year under review of 390 motor vehicles carrying 1,506 passengers, it is estimated that not less than 6,024 tourists made the tour to the summit, without taking into account the large numbers who visited the park during the winter months to participate in, or as spectators of, the ski-ing contests.

Park Improvement.—Considerable progress was made during the year with the improvement of the mountain road, including widening, revision, and renewal of culverts. One important piece of work involved the cutting and grading of some 500 feet of road to eliminate a horseshoe bend. Fifty per cent of this work was in solid rock, the remainder in loose rock and boulder stone, involving the removal of 6,121 cubic yards of material.

General maintenance of the 35 miles of Park trail was carried out by the warden staff. No new trails were constructed. Forest telephone lines were maintained in good order, as were also all wardens' patrol cabins.

Campgrounds.—There was an increase in the number of campers at Balsam Lake campground, registrations during the season totalling 1,506, compared with 1,362 for the corresponding period in 1934.

Fish Culture.—For the third year in succession, lakes Eva and Millar were stocked with fish fry as follows: cutthroat trout, lake Eva, 10,000; lake Millar, 15,000. Reports of the district warden indicate that fry planted in these lakes in previous years have now reached from 10 to 12 inches in length.

Fire Control.—No forest fires were reported during the year. A late spring and heavy precipitation in early summer reduced the fire hazard to the minimum. The usual tests of all fire-fighting equipment were carried out and regular patrols maintained.

Game.—The physical characteristics of Mount Revelstoke Park preclude the possibility of any large concentrations of game animals during the winter period. However, mountain goat, caribou, and deer, may be observed frequently during the summer. Grizzly and black bear are fairly plentiful near the highway. Predatory animals are scarce, only a few coyote making their appearance on the lower areas in summer. Of wolf, wolverine, and cougar, no signs were to be seen. Fur-bearing animals are not numerous, with the exception of marten. Bird life was very plentiful, and, along with other species, numerous flocks of grouse frequented areas adjacent to the highway during the summer.

Recreation.—The annual Carnival of the Revelstoke Ski Club was held in the park during the month of February, and was an unqualified success.

PRINCE ALBERT NATIONAL PARK

The fiscal year 1935-36 witnessed a period of marked progress in Prince Albert National Park. Tourist travel was well maintained and a number of important improvements were effected. Although actually fewer motor vehicles entered the park during the year under review, *i.e.*, 6,056 as compared with 6,187 in 1934-35, visitors numbered 21,292 in 1935-36 as against 21,108 in 1934-35, an increase of 184 persons. Under present condition these figures are regarded with satisfaction as indicating a general upward trend. Distinguished visitors included the Hon. H. E. Monroe, Lieutenant-Governor of Saskatchewan who, as in recent years, spent some time in the park.

Waskesiu Townsite.—There was considerable Government building activity at Waskesiu, headquarters of the park, during the year. The more important buildings erected were the museum, centrally located in the business section of the townsite, and the residential quarters for married members of the staff. In addition, the golf club-house was completed and a small caddy house and workshop erected. One private cottage was built in the Clare Beach subdivision. Other improvements included grading and gravelling of streets.



Approaching the ninth green, Waskesiu Golf Course. Prince Albert National Park.

Campgrounds.—The interiors of the two refrigerator buildings were redesigned, with excellent results. A resurvey of the campground and improvement work were undertaken and all lots were marked by new posts.

In addition to the main campsite at Waskesiu lake, campgrounds are maintained at Crean lake, Kingsmere lake, and at Sandy lake. A total of 4,216 campers was accommodated during the season, compared with 3,865 for the corresponding period in 1934, an increase of 351 individuals, made up as follows: Waskesiu lake, 3,832; Crean lake, 200; Kingsmere lake, 177, and Sandy lake, 7. Motor vehicles numbered 937 and the average stay in camp of each individual was 5.6 days, as against 6.8 days the previous year.

Licences and Permits.—A total of 1,499 licences and permits was issued during the year, exclusive of 2,673 one-round golf permits, as follows: camping permits, 1,050; lot rentals, 32; boat licences, 88; business licences, 23; chauffeur licences, 20; timber permits, 26; miscellaneous, 260.

Roads.—All thoroughfares were kept in excellent condition. Grading and gravelling of the Rabbit-Meridian and Narrows roads was completed, with the exception of a stretch of about 2.5 miles at the westerly end of the latter. The Narrows road promises to be a very attractive scenic route inasmuch as it skirts Waskesiu lake throughout its entire length, being not more than two hundred yards from the lake at any point.



King Island from Clare Beach, Waskesiu Lake. Prince Albert National Park.

Trails.—A large amount of trail work was completed during the year, principally on the Burntwood and Rabbit Cabin trails. The latter trail will provide ready access to Rabbit cabin, and at the same time afford an excellent fire-guard.

Fish Culture and Fishing.—A series of biological surveys have been carried on in recent years by Dr. D. S. Rawson, of the University of Saskatchewan, to determine the best methods to improve fishing.

Fire Control.—Six fires were reported, and with the exception of one instance, all were brought quickly under control. As in former years, Park authorities were ably assisted in the work of fire detection and suppression by

regular spring and autumn patrols carried out by units of the Royal Canadian Air Force. These aerial patrols operate on a regular schedule—from May 31 to June 15, and from August 5 to September 9. Data obtained through the meteorological stations at Waskesiu lake and at Meridian cabin also proved of great value. Atmospheric conditions are a prime factor in determining the fire hazard from day to day and by means of these meteorological reports it was possible to keep the warden staff conversant with conditions daily, the nature of these reports determining whether light or heavy patrols would be necessary.

Game.—Moose, elk, and caribou appear to be increasing in number. Deer, on the other hand, were less numerous than formerly. Snowshoe rabbit or varying hare have practically disappeared from the park, and there was a marked decrease in coyote. Wolf are not particularly plentiful. Beaver have given evidence of an increase in numbers.

There was an abundance of feathered life during the season, waterfowl, prairie chicken, and Hungarian partridge being exceptions. The scarcity of game birds has been attributed to unsuitable weather conditions during the nesting period.

Recreation.—Completion of the second nine holes of the golf course, and construction of four new tennis courts were features of the 1935 program. The additional facilities thus provided will do much to increase the importance of Prince Albert Park as Saskatchewan's recreational centre. Extension of the breakwater and enlargement of wharfage facilities at Waskesiu lake was an important piece of work carried out during the year under the supervision of the Department of Public Works. Ample protection is now assured for pleasure craft moored at this point.

During the season of 1935 two tournaments were held on the Waskesiu golf course. The first tournament was held on June 22-23. Entries were received from practically every golf club in northern Saskatchewan. Competition was accordingly very keen, the golf course was in excellent condition and the event passed off most successfully. The second tournament took place on August 10-12. There was a large number of entries and the tournament was a great success.

In addition to the golf course and ten tennis courts, the park is endowed with splendid natural facilities for rest and recreation. There is excellent swimming, boating, and canoeing. A large recreational area is provided, also a children's playground. Trail riding and hiking are likewise popular with many visitors.

RIDING MOUNTAIN NATIONAL PARK

Appreciation of Manitoba's "National Playground" showed no abatement during the year under review, although certain factors were definitely responsible for a slight decrease in the number of registered visitors to the park, the chief of which was the unusually wet weather. Figures for the year are nevertheless very encouraging and bespeak the value of the park as a recreational centre. Registrations of tourists at the Park entrance gateways numbered 24,148 motor vehicles carrying 93,895 passengers, compared with 26,418 motor vehicles carrying 100,035 passengers for the fiscal year 1934-35, a decrease of 6,140 visitors.

As in past years, Riding Mountain Park was selected again as the meeting ground for numerous conventions held annually by social, professional, and other organizations. Many personages distinguished in political, commercial, and professional life also were visitors at the park during the summer.

Tourist Information Bureau.—The service available at the Information Bureau, located at Wasagaming, headquarters of the park, was taken full

advantage of by tourists interested in the National Parks. The office dealt with a total of 11,093 verbal inquiries and letters during the season, May 15 to September 15.

Licences and Permits.—During the year a total of 4,507 licences and permits were issued, as follows: business licences, 149; timber permits, 1,836; camping permits, 1,302; hay permits, 236; grazing permits, 138; building permits, 13; lot rentals, 245; miscellaneous, 588.

Campgrounds.—A total of 4,452 persons was accommodated at Wasagaming campground for varying periods, the period of their occupancy totalling 81,980 person-days, or an average of $18\frac{1}{2}$ days per person. Services which add to the convenience of the campground include the laying of a water supply system and the installation of an electric distributing service.



New breakwater, Clear Lake, from beach near Wasagaming Townsite.
Riding Mountain National Park.

Work was undertaken for the development of additional camping and picnicking grounds at lake Katherine about one mile southeast of the east end of Clear lake. This involved the sinking of two wells for spring water and the construction of two standard kitchen shelters with tables.

Wasagaming Townsite.—The work of landscaping the townsite and the planting of trees and shrubs proceeded along approved lines. Other improvements included completion of curbing and sidewalks on main streets and extension of the drainage system. New buildings include a spacious garage and repair shop for Park automotive equipment, and an up-to-date fire hall. There also was installed an electric generating plant of 120 K.W. rating to provide light and power for Government buildings and for street lighting. The system will be capable also of meeting present needs of residents of the townsite. Good progress was made with the installation of a water supply system which will shortly go into operation.

In the business section of the townsite, private establishments were improved by remodelling and general maintenance of buildings and grounds. Five new

cabins were added at the bungalow campsite and the main building enlarged. This camp, which now comprises 45 bungalows, will provide accommodation for 180 persons. In the residential section, four new cottages were constructed and an additional four are under construction. Other improvements include the construction of seven boat landings on the lake front and beach-protection works along the public promenade.

Roads.—The Dauphin road, which will provide a short direct route north and south through the park, was completed during the year and will be opened for tourist travel in 1936. This road traverses a well timbered, high rolling country, and from a scenic point of view it is one of the most interesting roads in the park. Work also was completed on a revision of the North Shore road from Wasagaming around the east end of Clear lake and along the north shore to the south end of the Dauphin road, which completes the link-up of all Park roads, including the Norgate road to the eastern boundary of the park. Two secondary motor roads were constructed of about one mile each, one branching off the Norgate road to the new campground at lake Katherine, and the other being a continuation of the Lake Shore drive and known as the Glen Beag road.

Park Telephone System.—Approximately 150 miles of telephone line were maintained. No extension work was undertaken during the year by the Park authorities. However, long distance service was greatly improved, as the result of extensions made by the Manitoba Telephone System.

Fire Control.—During the season of 1935 fire hazard conditions on Park woodlands were acute for a very short period only between May 15 and 24. A weather observation station was established early in April equipped with instruments for daily weather readings. The information obtained from these weather charts was of great value in fire hazard forecasting and particularly in determining the need of aircraft patrols for detecting incipient outbreaks of fire. Although only ten fires occurred during the season as compared with twelve in 1934, an area of 3,103 acres of Park land was burned over as against only 264·8 acres during the previous year. Fortunately, the damage was confined largely to grass and scrub timber. Aerial patrols carried on by arrangement with the Royal Canadian Air Force were found most effective in the work of fire detection.

Wild Life.—Elk, moose, and deer abound in Riding Mountain Park and observations made by the warden staff indicate that conditions during the year were very satisfactory. Bird life was about normal except for sharp-tailed and ruffed grouse, which appear to have decreased, probably owing to wet weather during the nesting season.

Exhibition Animals.—The number of animals in Lake Audy exhibition pasture at the close of the fiscal year was as follows: buffalo, 55; elk, 148 (approximately); moose, 7; white-tail deer, 4; mule deer, 4; total, 218. The introduction of buffalo into Riding Mountain Park in 1931 has proved an unqualified success, the present number of this species in the park representing an increase of 35 in four years, or 175 per cent. The increase in elk, from 38 in 1934 to 148 in 1935, is due in part to natural increase but more particularly to the fact that 97 head of elk were enclosed in the exhibition pasture at the time of the fencing of the new range, which added approximately 1,332·6 acres of land to the enclosure, the total area of which is now 2,133·6 acres in extent. During the season of 1935, a total of 2,205 persons were admitted to the enclosure to view the animals at close quarters.

Fish Culture.—A further biological investigation of the waters of Clear lake was made during the early summer by Dr. D. S. Rawson, of the University of Saskatchewan, as a result of which a better understanding has been reached as to what may be done to improve angling.

Recreation.—Bathing conditions in Clear lake were much improved, particularly for the younger or less experienced swimmers, who were enabled to enjoy the facilities afforded by an increased area of sand beaches. The presence of two lifeguards during the summer season gave assurance of the necessary protection. Boating also was popular with Park visitors and for a short period a privately-owned seaplane was operated from the main pier carrying passengers on sight-seeing trips.

Six tennis courts were in play all season and were taxed to capacity. The courts were improved and the grounds adjacent to the tennis pavilion were landscaped.

The annual tennis tournament, held early in August under the auspices of the Wasagaming Board of Trade, was participated in by 180 contestants, being an increase of 40 over the 1934 entry card. The finals of the Western Manitoba Tennis Association were also played on the Wasagaming tennis court in August.



Gatekeeper's cottage at East Gate (Norgate Road entrance).
Riding Mountain National Park.

The Park 18-hole golf course has achieved a deservedly good reputation since its construction a few years ago. A total of 6,493 individuals engaged in single round games, 99 took out daily playing privileges, and 150 others secured weekly tickets. Seven seasonal tickets were issued. Many improvements were made on the golf course during the year. The greens were greatly improved, additional traps built, and others removed. Fairways and approaches were given a top dressing and steps taken to improve grass conditions. The golf clubhouse was enlarged to provide more adequate facilities for the accommodation of the increasing number of golfers frequenting the course.

The second annual golf tournament under the auspices of the Wasagaming Golf Club was held August 5-9, drawing 70 entries in the men's events, which was held on August 5-7, and 30 entries in the ladies' events, held on August 8-9.

Other sports popular with Park visitors included trail riding and hiking. Two licensed liverys catering to the demand for saddle horses for adults and Shetland ponies for the children.

The new museum at Wasagaming attracted a great many people. A number of interesting specimens of wild life form part of the exhibits, including mounted birds and animals. There are also examples of Indian craftsmanship. A notable addition made to the exhibits during 1935 consists of a diorama cabinet depicting various mammals in their native habitat.

BUFFALO NATIONAL PARK

Range conditions during the fiscal year which closed March 31, 1936, might be regarded as only fair. However pasture conditions in winter quarters were satisfactory as no grazing was permitted on this area during the summer.

Farming.—Approximately 370 acres were seeded to oats, but poor growing conditions affected the yield and quality of the crop. Returns for the year were as follows: oats, 4,636 bushels; green feed, 110 tons; straw, 64 tons; hay (cultivated), 280 tons, (wild) 1,046 tons.



Buffalo (part of main herd). Buffalo National Park.

Park Fences and Telephone Lines.—Repair work in connection with maintenance of approximately 120 miles of 8-foot, and 10 miles of ordinary fence, also 36 miles of telephone line, was carried on throughout the season. Work on the fence involved replacement of 2,025 fourteen-foot, and 310 eight-foot posts, and the resetting of approximately 6,500 old posts.

Fire Protection.—The maintenance of a proper fireguard is essential for the protection of the Park grass lands from fire originating outside the reserve. Approximately 140 miles of a 20-foot fireguard were ploughed, paralleling the fences both inside and out, also cross-sectionally at intervals. The strip of land between the two fireguards was kept clear of brush.

Abattoir.—During the night of November 19-20, 1935, fire of undetermined origin completely destroyed the slaughtering plant at the park. In consequence the annual slaughter of surplus buffalo had to be held over.

Donations.—A shipment of 20 buffalo (1 male and 19 females) was forwarded in crates during the month of February, 1936, to the Zoological Gardens at Berlin, Germany. According to advice received from the Berlin authorities, the animals arrived at their destination in a healthy condition.

In accordance with arrangements made with the Alberta provincial game authorities some time ago, 27 mule deer were released from the park during the winter and turned into the Battle River valley.

A mounted specimen of mule deer was donated to the Royal Ontario Museum, Toronto, Ontario.

Health of Animals.—The health of the animals was generally good.

Cattalo Experiment.—For the purpose of extending operations in connection with the cross-breeding experiments which have been carried on for some years in the park under the supervision of the Dominion Department of Agriculture, fifty young buffalo cows were segregated from the main herd in the autumn and placed in the cattalo enclosure. The work is proceeding satisfactorily.

Park Development.—In addition to maintenance of the gravelled road from the Wainwright entrance to the headquarters of the park, a distance of approximately two miles, necessary repairs were made to Park trails and a new location selected for about five miles of the Hardisty trail. Considerable progress was made on this improvement. Other necessary construction and maintenance work was also carried out.

Mott Lake Recreation Grounds.—The bathing beach and picnic grounds were visited by many people from the surrounding districts and by tourists who, in order to see the buffalo, had included the park in their holiday itinerary.

Visitors.—A total of 11,133 persons visited the park during the season compared with 12,992 during the preceding year. This slight reduction was due to unfavourable weather conditions.

Bird Life.—Waterfowl were not as plentiful as in former years, although Canada goose, duck, and swan found a resting place on several of the lakes in the park during the period of spring migration northward and on their return in the autumn.

Animal Census.—At the close of the year under review the number of animals in the park was as follows:—Buffalo, 5,584; mule deer, 1,307; elk, 1,445; moose, 115; yak, 40; hybrid livestock, 26; domestic cattle (cattalo experiment), 11; a total of 8,528 head. Coyote were more plentiful than usual. In the work of controlling these predators, a total of 19 were shot or otherwise destroyed by the wardens.

Permits.—Permits were issued for a total of 500 cords of dry wood and 3,500 green willow pickets to settlers in the vicinity of the park for their own use. Sections of the Ribstone meadow along Battle river outside the fenced enclosure were again leased for grazing purposes under yearly permits.

ELK ISLAND NATIONAL PARK

Although Elk Island Park is primarily an animal preserve, the success which has attended the building up in it of herds of big game animals under natural conditions possesses a great attraction for a large proportion of the people of Canada and other countries. The total number of tourists who visited this park in the past fiscal year was 44,767. This was about 9,000 below the figure for the fiscal year 1934-35, which was the peak year for visitors since the opening of the park. The decrease was due to a combination of adverse circumstances, chiefly unfavourable weather. Embracing an area of 51 square miles, the reserve is enclosed by a substantial buffalo-proof fence and at the close of the fiscal year contained the following: elk, 1,979; buffalo, 1,918; moose, 740; deer, 246. According to the plan of keeping the buffalo herd within the grazing capacity of the park, a total of 500 buffalo was slaughtered late in 1935.

Park Development.—There are approximately sixteen miles of motor road in Elk Island Park. A program of widening and improving, initiated in 1933-34, was continued during 1935-36. The main fences, totalling 35 miles in length, were maintained and a considerable portion reconstructed. Fireguards, which parallel the fences throughout the park, were reploughed. Approximately 500 tons of hay were harvested, in addition to a quantity of green feed. A garage was constructed at Park headquarters for the use of automotive vehicles and equipment, and all Park buildings were re-painted.

Campgrounds.—At Sandy Beach campgrounds 155 camping permits were issued, an increase of 13 compared with the previous year. Two additional kitchens were constructed and other improvements included the construction of tables and benches, and reconstruction of camp-stoves, fences, and walks. The work of beautifying the campsite was continued. The picnic grounds at Headquarters Beach were maintained in good order and attracted a great many visitors.



Astotin Lake, looking towards mainland. Elk Island National Park.

Recreation.—The new 9-hole golf course was seeded; all greens and tees were completed; fairways were widened. Two tennis courts were laid out to be completed in 1936.

Wild Life.—Coyote were plentiful but do not appear to have molested the animals in the enclosures. Bird life was abundant. Blue heron again were in evidence in early spring on Crane island in Astotin lake. Waterfowl also were quite plentiful. Song birds frequent the park in large numbers, notably oriole, bluebird, robin, and song sparrow. For the first time in many years swallow were seen in large numbers, also western tanager, previously unknown in the park.

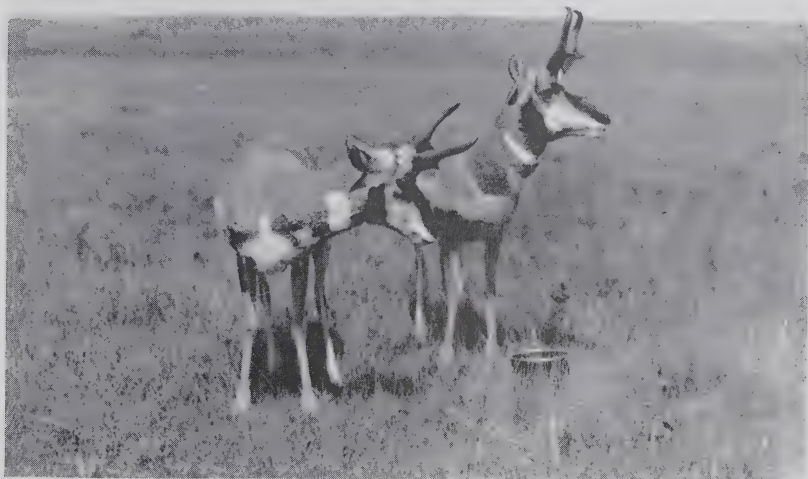
NEMISKAM NATIONAL PARK

Nemiskam Park is a fenced reserve of 8.5 square miles, established for the protection of pronghorned antelope, a species indigenous to the western plains of Canada.

Climatic conditions were excellent during the summer season and feeding conditions accordingly good. In consequence, the antelope thrive and come through the winter in good shape.

Considerable work was done to maintain the fences in proper condition. In summer, weeds lodging against the fences were removed and, in winter, drifting snow. Large accumulations lodged against the fences would make it comparatively simple for the animals to escape and constant patrolling therefore, is necessary.

The antelope have increased from a band of 42 head to approximately 350 in a period of twenty years. It is also noted that there has been no deterioration in size or stamina in the antelope, compared with animals on the open range before the reserve was established.



Pronghorn Antelope. Nemiskam National Park.

WAWASKEY NATIONAL PARK

Wawaskey National Park is an unfenced animal reserve, established in 1914 for the propagation of pronghorned antelope. Located about twenty-five miles north of Medicine Hat, the tract offers excellent harbourage for animal life and undoubtedly has been an aid in the protection of the antelope from extermination. There is the further fact that the reserve affords both summer and winter range of excellent quality—the occurrence of native grasses much favoured by antelope, indicating that the region was at one time the natural habitat of this interesting species. As the park has not been fenced it would not be possible to give an estimate of the number of antelope, but observers report a most gratifying increase generally throughout this section of the province of Alberta.

GEORGIAN BAY ISLANDS NATIONAL PARK

Georgian Bay Islands National Park embraces a group of thirty islands, comprising a total of 3,436.8 acres in Georgian bay. Beausoleil island, largest of the group is accessible from Midland and Penetanguishene. Flowerpot island, the name of which is derived from certain geological formations having the appearance of flowerpots, lies north of Bruce peninsula, and may be reached from Tobermory. The remainder of the islands are scattered throughout the bay.

A total of 5,521 persons visited Beausoleil and Flowerpot islands during the year under review, compared with 5,919 during the previous year. Beausoleil island has been developed to meet the requirements of visitors. Improvements include dockage facilities for lake craft and shelters for campers, equipped with cooking stoves. Developments during the year included improvement of beach and betterment and extension of trails. A new dock also was constructed at Honeymoon grove and a shelter at Indian Head beach. Campgrounds were maintained in a clean and tidy condition. At Flowerpot island improvements consisted of crib work, deepening of channel to facilitate entrance to wharf, and construction of new trails.

All islands forming the Park group were patrolled regularly during the year. Birds are abundant and so are many species of the smaller mammals. Deer and red fox are to be seen occasionally.



Campgrounds, Beausoleil Island. Georgian Bay Islands National Park.

POINT PEELE NATIONAL PARK

From the point of view of numbers Point Pelee National Park in southern Ontario occupies a premier position in respect to tourist travel. The fiscal year under review saw all previous records surpassed, with an increase of almost 25 per cent compared with the previous year. The figures for 1935-36 are: Canadian motor vehicles, 30,960, carrying 123,840 passengers; United States motor vehicles, 33,800, carrying 135,200 passengers; a total of 64,760 motor vehicles and 259,040 passengers, compared with a total for 1934-35 of 51,973 cars carrying 207,892 passengers.

Point Pelee Park, apart from its popularity as a playground, is an important bird sanctuary. Located on one of the main routes followed by migratory birds during flight to and from their nesting grounds in the northern regions of the

Dominion, Canada goose, duck, swan, and other species of wild bird find sanctuary in the park and in adjacent waters. Other birds frequenting the park and locality during the summer include the Carolina wren, cardinal, mockingbird, and blue-winged warbler.

During the year the park was maintained in first-class condition. The main thoroughfare, a road running approximately due north and south through the park a distance of seven miles, was resurfaced and improved. All buildings were kept in a good state of repair. A new Boy Scout shelter building was erected and fully equipped.

The facilities for recreation and sport which the park affords were again taken advantage of by various educational organizations, including the Boy Scouts, Sea Scouts, and contingents of the Canadian Girls in Training and the Canadian Girls Work Board. A total of 998 camping permits was issued during the year, compared with 926 during the corresponding period in 1934-35, an increase of 72. Of this number, 750 permittees camped for a full month in the park, the remainder for shorter periods. Duck shooting permits totalled 208.



Campgrounds, showing pavilion. Point Pelee National Park.

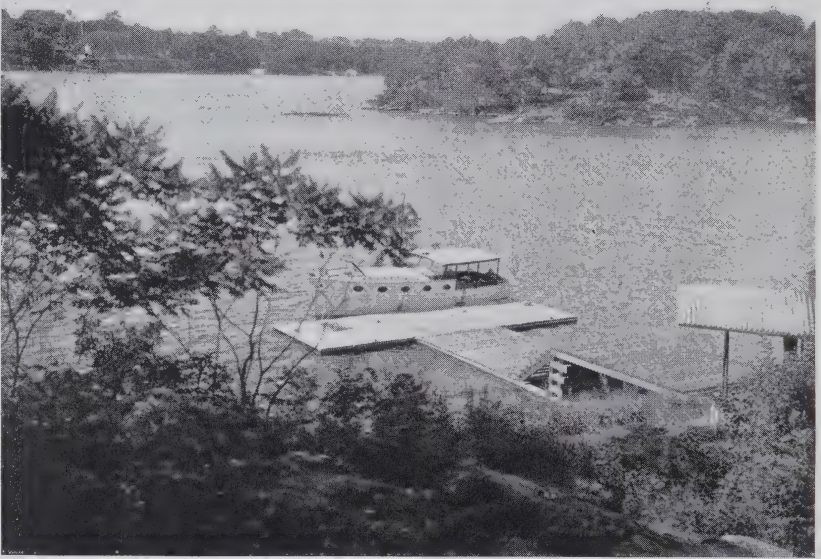
ST. LAWRENCE ISLANDS NATIONAL PARK

Between Kingston and Morrisburg, Ontario, fourteen islands in the St. Lawrence river and a small area on the north bank of the river at Mallorytown Landing, constitute what is known as the St. Lawrence Islands National Park. The islands are scattered throughout the archipelago known as the Thousand Islands.

Large numbers of tourists visit these island parks annually, their accessibility being one of their chief attractions. Although no actual count is feasible under present conditions, a fairly accurate tabulation of the number of visitors during the season of 1935 places the figure at 12,700, as against previous estimates of 15,000. The islands are possessed of individual characteristics of

charm and beauty. They offer ample opportunity for recreation, notably camping, swimming, and fishing. Necessary development work has consisted of the construction of pavilions, shelters and camp-stoves, wharves, rustic tables and benches, and other conveniences.

The islands are grouped for administrative purposes, a part-time caretaker being responsible for each group.



Landing wharf, Cedar Island. St. Lawrence Islands National Park.

FORT ANNE NATIONAL PARK

Fort Anne, at Annapolis, Nova Scotia, holds much of interest for students of Acadian history. It was in this area that European settlement in Canada had its beginning and many relics of those bygone times have been assembled in the Officers' Quarters, erected in 1798; the renovation of which as a museum was completed during the year.

A total of 8,229 visitors passed through the museum in 1935-36, a number somewhat below the attendance in 1934-35. In addition, approximately 5,000 persons visited the grounds, including the large gathering on the occasion of the formal reopening of the museum on Dominion Day, July 1, 1935. The United States was represented at this ceremony by Thomas H. Buckley, Esquire, deputizing for Governor James M. Curley of Massachusetts who was compelled to cancel his visit. Other distinguished visitors included Hon. A. S. Mac-Millan, Provincial Minister of Highways, representing the Premier of Nova Scotia; Hon. Michael Dwyer, Provincial Minister of Public Works and Mines; and Professor D. C. Harvey, Nova Scotia, representative of the Historic Sites and Monuments Board of Canada. In the restored museum building sixteen rooms (exclusive of office, library and store-rooms), are now available for museum purposes, as follows:—

Main Floor: Entrance Hall, Port Royal Room, Queen Anne Room, Acadian Room, Loyalist and Pre-loyalist Room, Garrison Room, Anteroom.

Attic Floor: War Room, Natural History Room, Miscellaneous Room, Map Room, Officers' Rooms "A" and "B".

Basement: Ship Room, Micmac or Indian Room, and one unassigned room.

Donations made to the museum during the year included the following: book of military plans (some by Vauban, in accordance with whose principles Fort Anne was erected) *Plates for Major Straith's Treatise on Fortification and Artillery* (sixth edition), printed in London, 1852; *A Complete Universal Dictionary of Arts and Sciences*—four volumes (belonging originally to the Reverend Jacob Bailey, United Empire Loyalist); photograph of the officers of the Nova Scotia Militia, 1865-66; old rush light holder; *Croix de Guerre*, obtained in Amiens, France, 1919; *Acadiensia Nova*, two volumes; Jubilee medal; old iron hatchet head, hand-made; Navy League button.

Other acquisitions included books for the museum library and three inscribed cards, one of which tells "How Port Royal received its Name" (quotation from Champlain and Lescarbot); another "Port Royal granted to Poutrincourt" (quotation from Lescarbot), while the third embodies an excerpt from the Preface to *An Historical and Statistical Account of Nova Scotia* written by Thomas Chandler Haliburton when he lived at Annapolis Royal.



Restored Museum Building (Officers' Quarters, erected 1797). Fort Anne National Park.

An interesting discovery made during the work of excavation in connection with the restored museum building was that of four cannon balls. These relics of a past military occupation are being preserved in the museum.

Special events celebrated during the year included an Indian Carnival, held at Digby and Annapolis Royal, August 4-5. Proceedings during the day-time took the form of a historical presentation of the arrival of d'Aulney de Charnisay at Port Royal and his selection of a site for a fort. Augmenting this review, land and water sports were held morning and afternoon, followed by a pageant in the evening.

Fort Anne Park was the meeting-place for a number of conventions during the year. Following the May meeting of the Historical Association of Annapolis Royal in the town hall, the members adjourned to the fort grounds where two Norway maple trees were planted and formally dedicated to Their Majesties King George V, and Queen Mary. Improvement work carried on at Fort Anne Park during the period under review included, in addition to the restoration of

the museum building, the reconstruction of the old roadway from the Main gateway of the fort to St. George street, and general maintenance of the fort and grounds.

FORT BEAUSÉJOUR NATIONAL PARK

Fort Beauséjour, overlooking Chignecto bay, is an important historic site associated with the early occupation of New Brunswick. The remains of the fortifications have been preserved from complete destruction for the benefit of posterity. Evidence of the interest which the fort has for students of Acadian history and tourists generally, is shown by the fact that the park was visited by a total of 3,848 persons during the year.

An important undertaking was the construction of a museum building. This is a fire-resisting stone structure of pleasing design, containing living quarters for a caretaker in addition to the space allotted to the museum. A very valuable collection of relics and manuscripts of the early history of the Chignecto district, donated to the museum by Dr. J. C. Webster of Shediac, N.B., will form the basis of the exhibits. A number of other exhibits also have been presented to the museum by public-spirited residents of the province.

In pursuance of the work which has been carried on in the past of preserving the remnants of the fortifications, a number of old trenches, caved-in with the passage of time, were cleared and partially restored. Two courses also were built on the curtain wall at the main entrance to the fort in continuation of the work commenced in previous years.

MIGRATORY BIRDS CONVENTION ACT

(Chapter 130, Revised Statutes of Canada, 1927, and amendments)

On August 16, 1916, a treaty for the better protection of birds which migrate between Canada and the United States was signed at Washington, D.C. This treaty was made effective by Act of the Parliament of Canada in 1917.

The Minister of the Interior is responsible to Parliament for fulfilment of Canada's obligations under the Treaty, the Commissioner of National Parks is responsible to the Minister for the administration of the statute, and the Supervisor of Wild Life Protection is technical adviser and executive assistant.

By virtue of Order in Council, P.C. 2283, of October 14, 1932, responsibility for police work pertaining to the enforcement of the provisions of the Migratory Birds Convention Act, and Regulations made thereunder, was transferred to the Royal Canadian Mounted Police; all other powers and responsibilities continuing to remain with the Department of the Interior.

PROTECTION OF MIGRATORY BIRDS

Wild Ducks and Geese.—The wild-fowl supply of the continent continues in a more or less precarious condition. This arises from a variety of causes. The increased use by man for food and sport has been an especially severe drain upon many species during the last few years. The breeding range for these species has been decreased, first, by the advance of agriculture into the nesting area, and, second, by drought in the southern part of the Prairie Provinces. The problem is exceedingly complicated because each species of wild duck and wild goose has a different breeding area. Those kinds of ducks that formerly had their chief centre of abundance in summer on the southern prairies have been most affected. Other waterfowl that have their chief nesting areas immediately north of the agricultural belt in the Prairie Provinces, have not shown such a serious decrease. Again, some other kinds of ducks, and most of the present population of wild geese, nest well north of general human habitation, and their nesting grounds have been altered but little by human activity.

Apparently the only factor immediately controllable, which will help to prevent even more serious decreases of waterfowl, is rigid restriction of shooting and hunting.

Hundreds of voluntary observers throughout Canada have assisted the branch in maintaining intimate knowledge of the waterfowl situation. It appears that 1935 afforded better breeding conditions than did any of the previous six years. On the prairies, there was greater precipitation, and because of this a slight improvement in the supply resulted. In the East the black duck recovered from the serious set-back of two years ago. The prairie waterfowl migration occurred three or four weeks earlier than in 1934, and terminated abruptly with the onset of winter during the last few days of October. At that time large flocks of waterfowl were moving southward in a hurried and concentrated migration, which gave some observers a false idea of numbers. In Eastern Canada there was no outstanding feature of migration. Mild weather prevailed throughout the duck-hunting season, and while birds were reported abundant in some sections, it is thought that comparatively few were taken.

Eel-grass, which is a very important food plant for waterfowl in the Maritime Provinces, continues to show very serious depletion from the unknown cause which has affected this plant for a number of years. Observations continue to be made on the condition of this plant, which it is expected will result eventually in providing a remedy.

Other Birds.—Interest in the wild bird life of Canada, to judge from correspondence and comments in the daily press, continues to grow as more and more people learn to appreciate this attractive and ever-changing part of outdoor life. Canada as a whole derives economic, as well as aesthetic, benefit from the many species of birds protected under the Treaty.

Administration.—The administration of the Treaty continued, without major changes, under the immediate supervision of four district migratory bird officers, who operate under the direction of the Branch.

Prairie Farm Rehabilitation Act.—A function of the Committee on Water Development connected with the operation of this Act in the drought area of the Prairie Provinces is the restoration of farm water-supplies. Since small reservoirs established for this purpose could be of use to waterfowl for nesting and resting places, the migratory bird officer in charge of the prairie district attended a meeting of the committee and urged that any small bodies of water established under the Act be protected by fencing a portion, to be used, at least in part, for waterfowl conservation purposes.

Bird Sanctuaries.—New bird sanctuaries were established as follows:—

Bathurst Basin, in the Province of New Brunswick.

Knowlton, in the Province of Quebec.

The Lethbridge Country Club, in the Province of Alberta.

The force of honorary migratory bird officers appointed under the Act, 777 in number, gave the usual valuable assistance.

Permits and Licences.—During the calendar year 1935 the following permits and licences were issued under the Migratory Birds Convention Act: to collect birds for scientific purposes, 307; to band birds, 153; to possess birds for propagating purposes, 682; to capture birds for propagating purposes, 8; to destroy birds when seriously injuring agricultural, fishery, or other interests, 88; to collect eider-down, 19; to conduct business as a taxidermist, 55; to control great black-backed gull in a bird sanctuary, 1; to possess and discharge firearms in a bird sanctuary for the purpose of shooting seal, 2; to transport an unloaded gun across a bird sanctuary for the purpose of shooting seal, 1; and to possess and discharge firearms in a bird sanctuary for the purpose of shooting crow, 1.

Bird Banding.—Bird banding, or the marking of native wild birds by means of metal bands bearing a serial number and a return address, was continued successfully in Canada during the year. The object of this work is to gather exact vital statistics relating to the general biology of wild birds, and much of the valuable scientific data being collected in this way could not be gathered in any other manner.

Because of the migratory habits of most species of birds, bird-banding work is international in its scope, and therefore, in North America, is conducted in full co-operation between the National Parks of Canada and the United States Bureau of Biological Survey, Washington, D.C. Practically all bird banding in North America is done by voluntary assistants who operate throughout Canada and the United States under the authority of either Dominion or Federal bird-banding permits. The official bird-banding returns for Canada are kept as part of the records of the Wild Life Division of this Branch.



Atlantic Puffins, St. Mary's Islands Bird Sanctuary, P.Q.

Since 1923, bird banding has continued to expand. During the calendar year 1935 a total of 25,606 wild birds was banded in Canada by 153 bird-banding co-operators, and several thousand banded birds were recovered and reported to the central bureau.

Publicity.—Every possible opportunity is taken to acquaint the public with the bird life of Canada, and the need for its protection. The following material was distributed during the year: pamphlets, 29,139; Migratory Birds Convention Act, 5,911; abstracts, 13,088; and posters, 43,853.

One hundred and eighty-six lectures were given by officers of the Branch. Motion pictures and lantern slides were freely utilized in illustrating these lectures. Also, both motion pictures and lantern slides to the number of 2,987 were lent to voluntary lecturers throughout the country.

Game Conferences.—The Branch was represented at the following conferences on conservation, or on scientific studies connected with conservation: the International Association of Game, Fish and Conservation Commissioners, at

Tulsa, Oklahoma, September 12-13, 1935; the 53rd Stated Meeting of the American Ornithologists' Union, at Toronto, Ontario, October 21-25, 1935; the meeting of the Saskatchewan Game Protective Association, which was held at Saskatoon, Saskatchewan, on March 23, 1936.

The President of the United States called a North American Wild Life Conference to meet at Washington, D.C., on February 3-7, 1936, and an invitation was extended to the Government of Canada to be represented. This invitation was transmitted officially to each of the provinces of Canada. The Department of the Interior was represented by the Commissioner of National Parks, and the Supervisor of Wild Life Protection. The following Dominion departments also sent delegates: Department of Agriculture; Royal Canadian Mounted Police; Department of Indian Affairs; Department of Fisheries, and the National Research Council. Several of the provinces and a number of business concerns and game conservation organizations also accepted the invitation.

The conference had 1,400 registered delegates, and an estimated attendance of approximately 2,500 persons. It tentatively organized all the conservation interests of the United States into one National Federation of Wild Life Interests. The new Federation proposes to co-operate with any similar organizations which may be formed in Canada and Mexico.

It was announced at the Conference that a treaty had been signed between the United States of America and Mexico for the protection of birds which migrate between the two countries concerned. The conclusion of this treaty should be of great benefit to Canada because many migratory birds from Canada ordinarily visit Mexico in the course of their migrations. Under the new treaty they will receive additional protection while there.

The Prime Minister sent the following message to the conference, where it was presented by the Commissioner of National Parks:—

It gave me great satisfaction to learn that the Government of the United States had called together a conference for the purpose of discussing wild life conservation on the North American Continent.

The treaty between the United States and Canada for the protection of migratory birds indicates the inter-relation of interests between our countries in that phase of wild life conservation.

Following the policy established by that treaty, Canada is pleased to join with the United States of America and the Republic of Mexico in the present effort to advance the cause of conservation of North American wild life, to the end that the full economic and æsthetic possibilities of this great and distinctive resource may not only be enjoyed by the present generation, but be handed down unimpaired for the future citizens of this continent.

On behalf of the Government and people of Canada I extend all good wishes for success in your deliberations in the confident hope that the conference will result in much benefit to the cause you are espousing.

Other Canadian items on the program were as follows:—

"The Administration of the Wild Life of Canada," by Hoyes Lloyd, Secretary, Advisory Board on Wild Life Protection.

"What Canada is doing for the Hunting Indian," by T. R. L. MacInnes, Department of Indian Affairs.

"Outline of Canada's National Policy on Fish Culture," by J. A. Rodd, Director of Fish Culture, Department of Fisheries.

"The Management of the Fisheries at Paul Lake, British Columbia," by J. A. Rodd, Director of Fish Culture, Department of Fisheries.

"The Reindeer Drive from Alaska to the Delta of the Mackenzie River," prepared by the Lands, Northwest Territories and Yukon Branch, Department of the Interior.

"Regional Types of Response of Wild Life to the Sunspot Cycle," by R. E. DeLury, Asst. Director, Dominion Observatory, Department of the Interior.

"Tetrameres Crami Swales, 1933—an important Parasite of Ducks in North America," by W. E. Swales, Institute of Parasitology, Macdonald College, McGill University, Montreal.

"Eel-grass and other Waterfowl Foods—Present Status and Future Prospects," by Harrison F. Lewis, National Parks Service, Department of the Interior and Clarence Cottam, United States Biological Survey.

"The Canadian Waterfowl Situation, 1935," by Hoyes Lloyd, Supervisor, Wild Life Protection, Department of the Interior.

"The Fundamentals of the Wild Duck Situation, 1936," by P. A. Taverner, Ornithologist, National Museum of Canada.

"Wild Waterfowl Conditions in Manitoba," by A. G. Cunningham, Provincial Director of Game and Fisheries, Winnipeg, Manitoba.

"Management of Fur in the Northwest Territories," prepared by the Lands, Northwest Territories and Yukon Branch, Department of the Interior.

"Canada's Fur Resources," by Hoyes Lloyd, Supervisor, Wild Life Protection, Department of the Interior.

"Wild Life Conservation Activities of the Hudson's Bay Company," by R. H. G. Bonnycastle, Hudson's Bay Company, Winnipeg, Manitoba.

GENERAL WILD LIFE

Snowshoe Rabbit.—With the help of several hundred voluntary co-operators the general inquiry into fluctuations of the snowshoe rabbit, or northern varying hare, continued. The data gathered were collated by Mr. Charles Elton, Director of the Bureau of Animal Population, Oxford University, with the assistance of Mr. G. Swynnerton, and will be published in Canada. An important development in connection with this inquiry was the furnishing of United States and Alaskan information by the Biological Survey of the United States for compilation with the Canadian statistics, and by similar action on the part of the game authorities of Newfoundland. Thus, the inquiry, through the co-operation of three Governments and many private agencies, and with the assistance of Oxford University, has developed to a point where the cycles of abundance and scarcity of this very important species are under close observation throughout its range in North America.

Historic Sites and Monuments

During the past year the National Parks Service continued the work of restoring and marking historic sites and to the commemoration of leading persons and events connected with the early history of the Dominion. The National Parks Service is advised in this phase of its work by the Historic Sites and Monuments Board of Canada, an honorary body composed of recognized historians, representing the various sections of the country.

The annual meeting of the Board was held at Ottawa, May 29, 30 and 31, 1935. A number of new sites, suggested for marking, were reviewed and a selection made. Of the total number of sites considered by the Board since its inception, 230 have been suitably marked and 73 more recommended await attention.

During the fiscal year 1935-36, the following memorials were erected:—

First Organized Land Survey, Holland Cove, P.E.I.—A cairn with tablet was erected at the summer cottage colony near the South Shore road, on a small plot of land donated by Mr. Robert L. Cotton of Charlottetown, to commemorate the first organized land survey. Following the Treaty of Paris in 1763, the British Government ordered a systematic survey of its possessions in North America. Captain Samuel Holland was placed in charge of the district lying north of the Potomac river and, because of the importance of the fisheries

industry, received instructions to begin with Prince Edward island. Captain Holland established his headquarters at Holland Cove in October, 1764, and completed his survey of the island the following year.

Liverpool Privateersmen, Liverpool, N.S.—A cairn with tablet was erected in Fort Point Park, by consent of the town council, in memory of the Privateersmen of Liverpool Bay, who maintained and defended their trade with the West Indies, and waged successful war upon the enemies of Great Britain in ships fitted and armed at their own expense. Foremost among them were: Alexander Godfrey of the brig *Rover* and Joseph Barss, Jr., of the schooner *Liverpool Packet*.

The 104th New Brunswick Regiment, Fredericton, N.B.—A cut stone monument with tablet was erected in the small park at the junction of Brunswick, King, and Smythe streets, by permission of the city council, to commemorate the distinguished services of the 104th New Brunswick Regiment in the defence of Canada in 1813-14, its endurance in the winter march through the wilderness from Fredericton to Quebec, its fortitude and valour at Sackett's Harbour, Beaver Dams, the blockade of Fort George, the Battle of Lundy's Lane, and the assault on Fort Erie.

Simon Newcomb, Wallace Bridge, N.S.—A cut stone monument with tablet was erected on a small plot of land donated by Mr. Harvey A. Betts, adjacent to the Wallace-Pugwash highway, to mark the birthplace of Simon Newcomb, 1835-1909, who, self-taught, in the face of adversity, became one of the world's greatest scientists. Migrating to the United States at the age of eighteen, he devoted his life to astronomy. For his contributions to science he was awarded the Copley Medal of the Royal Society of London, made a Foreign Associate of the French Academy of Sciences, and honoured by many universities and learned societies throughout the world.

First Agricultural Fair in Canada, Windsor, N.S.—A cut stone monument with tablet was erected in the small park between King and Gerrish streets, by consent of the town council, to commemorate the first agricultural fair in Canada, authorized on the creation of the township of Windsor in 1764 and held at Fort Edward Hill on May 21, 1765. In 1766 the trustees of the fair received a royal charter which was renewed in 1815. Since that date the fair has been held annually without interruption.

First Patent in Canada, Quebec, P.Q.—A tablet was affixed to the stone wall on the east side of Côte de la Montagne street, adjacent to the Laval-Montmorency park, by permission of the Department of National Defence, to commemorate the first patent of invention, issued by the Province of Lower Canada in the Parliament Buildings which stood on that site. This patent was granted on June 8, 1824, for a washing and fulling machine in favour of Noah Cushing of Quebec.

Chambly Road, St. Hubert, P.Q.—A cairn with tablet was erected at the entrance to the St. Hubert airport, by consent of the Department of National Defence, to mark the Chambly road, one of the earliest highways of importance in Canada, built to connect Montreal with the chain of forts erected along the Richelieu river for protection against the Iroquois. It was opened in 1665 under instructions of M. de Courcelle, Governor of New France.

Lachine Massacre, Lachine, P.Q.—A cut stone monument with tablet was erected on a site provided by the city council, adjacent to St. Joseph street, to commemorate the massacre which took place on the night of August 4-5, 1689, when fifteen hundred Iroquois landed at Lachine and placed themselves in

small groups near all the houses along the shore. At a given signal the massacre began; two hundred persons perished and one hundred and twenty were taken into captivity. The year 1689 was long known as "The Year of the Massacre."

Soulanges Canal, Cascades Point, P.Q.—A cairn with tablet was erected adjacent to the main highway, near Lock No. 3, by consent of the Department of Railways and Canals, to commemorate the construction of the Soulanges canal. This canal was built in 1892-1900 to overcome the Cascades, Cedars, and Coteau rapids and replaced the old Cascades canal, constructed by the Royal Engineers in 1779-83. This is one of the eight canals which, by way of the Great Lakes and the St. Lawrence river, connect Western Canada with the Atlantic ocean.

Lansdowne Iron Works, Lyndhurst, Ont.—A cairn with tablet was erected on a small plot of land donated by Mr. F. W. Bresee, at the corner of Cook and Charles streets, to mark the site of the Lansdowne iron works. These works were built by Wallis Sunderlin in 1801 and operated until 1811. This was the first successful effort to develop the manufacture of iron from local ore in Upper Canada.

Kingston Navy Yard, Kingston, Ont.—A tablet was attached to the Stone Frigate Building, Royal Military College, by permission of the Department of National Defence, to mark the site of the British naval station for lake Ontario during the years 1788-1818. Here were built the King's ships: *Speedy*, *Swift*, *Duke of Kent*, *Earl of Moira*, *Duke of Gloucester*, *Royal George*, *Wolfe*, *Melville*, *Sir Sydney Smith*, *General Beresford*, *Prince Regent*, *Princess Charlotte*, *St. Lawrence*, and *Canada*. In the war of 1812-14 this naval force enabled the army to retain control of Upper Canada.

Burlington Heights, Hamilton, Ont.—A stone monument with tablet was erected in Harvey park, by consent of the board of park management, to mark the place where, in June, 1813, General John Vincent assembled troops that made the successful night attack on the invaders at Stoney creek. From this point of vantage, in December, 1813, the force which retook Fort George and carried Fort Niagara by assault, began its march. On these heights stood the strong point of reserve and depot of arms for the defence of the Niagara peninsula and support of the navy on lake Ontario.

The "Tigress" and "Scorpion," Penetanguishene, Ont.—A cairn with tablet was erected in Huronia park, on a site provided by the town council, in memory of the gallant capture on lake Huron of the United States ships of war, *Tigress* and *Scorpion*, September 3 and 6, 1814, by seamen of the Royal Navy under Lieutenant Miller Worsley, after a memorable voyage in an open boat from Nottawasaga bay to Mackinac, aided by soldiers of the Royal Newfoundland Regiment commanded by Lieutenants Armstrong, Bulger and Radenhurst. In compliance with the Rush-Bagot agreement, these ships were sunk in Penetanguishene bay.

Discoverer of the Canadian Prairies, The Pas, Man.—A cairn with tablet was erected in Devon park by permission of the town council, in memory of Henry Kelsey, Hudson's Bay Company fur trader and explorer. He was the first white man to travel inland from Hudson bay to what is now eastern Saskatchewan and see the Canadian prairies, (1690-92), and also the first white person to record the existence of the musk-ox of the north, and the buffalo and grizzly bear of the Canadian West.

Battle of Fish Creek, near Fish Creek, Sask.—A cairn with tablet was erected in the cemetery located on legal subdivision 15 of section 23, township 41, range 2, west of the 3rd meridian, to commemorate the engagement which

took place on April 24, 1885, when troops under the command of General Middleton, while moving to capture Batoche, were attacked by half-breeds under Gabriel Dumont, from concealed rifle pits near the mouth of Fish creek. The soldiers who were killed in this engagement were buried in the cemetery.

The Peacemakers, Wetaskiwin, Alta.—A cut stone monument with tablet was erected in the park facing Edward street, between Lansdowne and Pearce streets, by consent of the city corporation, in grateful remembrance of the public services of the Reverend Father Lacombe, O.M.I., and the Reverend John McDougall. During the troublous days of 1885 their influence with the Indians was a powerful factor in the preservation of peace in what is now the Province of Alberta.

Fort Alexandria, near Alexandria, B.C.—A cairn with tablet was erected adjacent to the Cariboo road, about four miles north of Alexandria, on a plot provided by the Provincial Government, to mark the site of Fort Alexandria, built in 1821, the last post established by the North West Company west of the Rocky mountains and Sir Alexander Mackenzie's farthest point in the descent of the Fraser river in 1793. (From this point Mackenzie went back up the river for some distance and reached the shore of the Pacific ocean by another route.) After 1826, when the trade of New Caledonia found outlet to the Pacific, instead of the Atlantic, it was the point of transfer from the land to the water brigade and so it remained until the gold discoveries transformed conditions.



New Museum Building, Louisbourg Fortress, N.S.

PRESERVATION WORK

Preservation and other development work was carried out at the following sites, funds for the larger portion of this work having been provided under the Public Works Construction Acts:—

Fortress of Louisbourg, near Louisbourg, N.S.—Further progress was made in connection with the development of this historic site. Excavation of the rooms on the east side of the barracks and officers' quarters in the Citadel was

carried out to the basement floor level. The ruins of two large baking ovens, which were exposed during excavation, were repaired and partially reconstructed. On the west side the cobblestone walk running along the building was uncovered, together with sections of the surface drain along that side. The small guardhouse in the King's bastion was cleaned out and the ruins of the walls exposed. The walls of four rooms at the south end, which formed part of the Governor's apartment, were partially exposed. Additional surfacing was carried out on the entrance road, and the protection crib along this road which was commenced the previous year was completed. The frame building formerly used as the caretaker's quarters was demolished and a new fireproof museum erected in keeping with the architectural lines of the original fortifications.

Prince of Wales Tower, Halifax, N.S.—Through the co-operation of the Department of National Defence, the exterior walls of the tower were repaired and pointed, the wooden floor of the first storey was renewed, new doors and windows were fitted, and concrete laid on the ground floor. The concrete roof was also repaired and waterproofed, and the interior of the tower whitewashed.

Fort Chambly, Chambly, P.Q.—Repairs were made to the walls of this old structure, and a new fireproof museum was built within the fort to accommodate the increasing number of relics and other exhibits which are being gradually obtained.

Fort Lennox, Ile-aux-Noix, P.Q.—A complete drainage system was installed; the remains of the two large kitchens and ovens located in the inner embankment of the moat behind the officers' quarters were repaired, and the stone floors of the arcades of the officers' quarters and guardhouse were taken up and relaid. The commissariat building was reroofed, galvanized iron gutters and down pipes were installed on the men's barracks, and extensive repairs carried out on the guardhouse.

Fort Prince of Wales, Churchill, Manitoba.—Further restoration work was carried out on the ruins of this historic landmark under the supervision of the resident engineer of the Department of Railways and Canals. The entrance walls of the fort inside the gate, the arch of the gate, the ravelin in front of the gate, the whole of the south or front wall, and the interior wall east of the entrance walls were rebuilt. The courtyard was cleaned out to the cobblestone pavement, the ruin of rock which was formerly the west wall of the fort, was cleared away; brush around the fort was cut, and eight additional gun foundations were constructed, making a total of 27 built, and 13 remaining to be constructed.

Fort Langley, Langley, B.C.—Extensive repairs were made to the old fort which is now being used for museum purposes. The entire east wall was torn down and rebuilt with new material, the new timber being framed and scored with a broadax to resemble the original as much as possible. The south wall was rebuilt with salvaged material; new rafters were placed where necessary and the roof re-constructed. Concrete piers were placed under the cross beams and new beams put in where required. New flooring was laid throughout. Electric lighting also was installed in the building.

ACQUISITION OF SITES

Jean Pierre Roma, near Georgetown, P.E.I.—Mr. William Stewart of Montague, and Mr. Henry Parker of Georgetown, have consented to donate a small plot of land as a site for the memorial it is proposed to erect to mark the place where, in 1732, Jean Pierre Roma founded a base for control of the Gulf fisheries and for trade with France, Quebec, and the West Indies. This establishment was destroyed after the fall of Louisbourg in 1745.

Prince of Wales Tower, Halifax, N.S.—By Order in Council, dated January 25, 1936, P.C. 190, the Prince of Wales tower, situated in Point Pleasant park, together with a circular piece of land having a radius of 80 feet was transferred to the Department of the Interior by the Department of National Defence for historic sites purposes.

Roseau Route, Letellier, Manitoba.—Permission was obtained from the council of the Municipality of Montcalm to place a monument adjacent to the Jefferson highway to mark the war road of the Sioux leading to the lake of the Woods. This was the earliest route to the West, and was first used in 1733 by the French. La Jemmeraye (La Verendrye's nephew and one of his lieutenants) who died in 1736, was buried near the mouth of the Roseau river.

Fort Assiniboine, Alta.—The University of Alberta has provided a plot of land on the southwest quarter of section 1, township 62, range 6, west of the 5th meridian, to commemorate the substitution of land carriage for water transport on the trade route to the Pacific. The original route from the Saskatchewan to the Athabaska was by canoe, following Churchill river, lac Ile à la Crosse, Beaver river and lac la Biche and rivière la Biche. In 1825, Sir George Simpson changed the route to the North Saskatchewan river as far as Edmonton, and thence by pack train to this point, thereby effecting material saving in time and expense.

Great Fraser Midden, Vancouver, B.C.—Permission was obtained from the city of Vancouver to place a monument in Marpole park to mark the site of one of the largest prehistoric middens on the Pacific coast of Canada. The implements and utensils found in this midden have thrown much light upon the cultural status of prehistoric man in this neighbourhood.

Kootenay House, near Invermere, B.C.—Mrs. A. M. Hamilton has donated to the Dominion for commemorative purposes a plot of land, comprising 11.61 acres covering the site of David Thompson's post, Kootenay House, B.C.

THE NATIONAL PARKS OF CANADA

(Eighteen in number with a total area of 12,059 square miles)

Park	Location	Date established	Area in square miles	Characteristics
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,585.00	Mountain playground, containing two famous resorts—Banff and Lake Louise. Massive ranges, upper slopes bare and worn, or glacier-crowned; lower slopes covered with luxuriant forests and flowered alplands; glacier-fed lakes. Wild deer, goat, sheep, elk, etc. Recreation—alpine climbing, riding, swimming, golf, tennis, motoring, fishing, ski-ing, tobogganing, snow-shoeing, skating, curling.
Buffalo.....	Eastern Alberta, near Wainwright.	1908	197.50	Fenced enclosure. Home of the Dominion Government buffalo herd. More than 5,000 buffalo, also moose, deer, elk, yak and hybrids.
Elk Island.....	Central Alberta, near Lamont.	1911	51.00	Fenced enclosure, containing more than 2,000 buffalo, also moose, elk, and deer. Recreational area; camping, bathing, Government golf course.
Fort Anne.....	Nova Scotia, at Annapolis Royal.	1917	31 (acres)	National Historic Park. Site of early Acadian settlement of Port Royal; museum containing interesting relics of early days.
Fort Beauséjour....	New Brunswick, near Sackville.	1926	59 (acres)	National Historic Park. Site of old French fort erected middle of 18th century. Renamed Fort Cumberland in 1755 by British; original name was later restored.
Georgian Bay Islands (including Flowerpot Island reserve).	In Georgian Bay, near Midland, Ontario.	1929	5.37	Thirty islands in Georgian Bay. Beausoleil, largest of the group is a popular camping resort. Fine bathing beaches, beautiful groves of trees, varied bird and plant life. Flowerpot island, at head of Bruce peninsula has interesting limestone formations and numerous caves.
Glacier.....	Southeastern British Columbia, on summit of the Selkirk range.	1886	521.00	Massive formation of the old Selkirk range. Luxuriant forests, alpine flower gardens. Centre for alpine climbers. Illecillewaet and Asulkan glaciers and valleys; Nakimu caves. Marion lake, Rogers and Baloo passes.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.00	Immense mountain wilderness, rich in historical associations. Numbers of unclimbed peaks; glaciers, snow-fields, canyons, lakes of wonderful colouring. Athabaska valley. Maligne lake, Mount Edith Cavell, Miette hot springs. Big game sanctuary. Recreation—alpine climbing, riding, swimming, golf, tennis, motoring, fishing.
Kootenay.....	Southeastern British Columbia, along Banff-Windermere highway.	1920	587.00	Park extends five miles on each side of Vermilion-Sinclair section of Banff-Windermere highway. Deep canyons, Iron Gates, Briscoe range. Sinclair canyon, famed Radium Hot Springs. Bear, deer, caribou, and Rocky Mountain sheep.

THE NATIONAL PARKS OF CANADA—*Concluded*

Park	Location	Date established	Area in square miles	Characteristics
Mount Revelstoke...	Southeastern British Columbia on the summit of Mount Revelstoke.	1914	100.00	Nineteen-mile drive up Mt. Revelstoke affording panoramic views of the Columbia and Illecillewaet valleys. Clachnacudainn ice field, lakes Eva and Millar. Game sanctuary and winter sports resort.
Nemiskam.....	Southern Alberta, near Foremost.	1922	8.50	Fenced pronghorned antelope reserve, containing more than 300 head of this interesting animal, a species indigenous to the region.
Point Pelée.....	Southern Ontario on lake Erie.	1918	6.04	Most southerly mainland point in Canada, 41°54' N. Resting place of many migratory birds; unique flora. Recreational area, camping bathing.
Prince Albert.....	Central Saskatchewan, north of Prince Albert.	1927	1,869.00	Forest country of northwestern Canada. Birch, spruce, jack pine, poplar. Lakes and streams. Moose, deer, bear, beaver and interesting bird life. Excellent fishing, northern pike, pickerel and lake trout. Summer resort, sand beaches, camp-grounds, Government golf course.
Riding Mountain....	Southwestern Manitoba, west of lake Winnipeg.	1929	1,148.04	Rolling woodland country in western Manitoba dotted with several beautiful lakes. Natural home of big game including one of the largest herds of wild elk in Canada. Summer resort; fine bathing and camping. Government golf course.
St. Lawrence Islands	In St. Lawrence river between Morrisburg and Kingston, Ontario.	1904	185.6 (acres)	Thirteen islands among the "Thousand Islands" in the St. Lawrence river. Recreational area, camping, fishing.
Waterton Lakes....	Southern Alberta adjoining Glacier park in Montana, U.S.A.	1895	220.00	Canadian section, Waterton-Glacier International Peace Park. Mountains noted for beauty of colouring; lovely lakes, picturesque trails; waterfalls, snow peaks. Trout fishing, camping, Government golf course.
Wawaskesy.....	Southeastern Alberta...	1922	54.00	Antelope reserve, as yet undeveloped.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.00	Rugged scenery on west slope of Rockies. Kicking Horse valley. Lofty peaks, large number with permanent ice-caps or glaciers. Famous Yoho valley with numerous waterfalls, one over 1,200 feet in height. Natural bridge, Emerald lake, lakes O'Hara and McArthur.

APPENDIX

The Alpine Club of Canada

(From the report of the Chairman of the Club-House Committee)

The club-house at Banff opened for the season on June 29, 1935. The attendance varied considerably. The weather for the last two weeks of the season was poor, and this affected the number of visitors.

The total registration during the season was 350, the provinces and countries represented being as follows:—

Alberta.. . . .	81	Saskatchewan.. . . .	23
British Columbia.. . . .	44	England.. . . .	17
Manitoba.. . . .	15	Scotland.. . . .	2
Ontario.. . . .	27	India.. . . .	2
Quebec.. . . .	1	United States.. . . .	138

(From the Report of the Secretary of the Alpine Club of Canada)

The 30th annual camp was held from July 13 to August 4, 1935, on the west side of Magog lake in Assiniboine Provincial Park, B.C., amidst larch and balsam bordering a small stream from Sunburst lake.

The 32-mile trip was divided into two stages, a camp for the first night having been established on Brewster creek, a short distance above Fatigue creek. Here sufficient tents, including a dining fly and cook tent, were left to accommodate parties coming and going.

The second day's trip led by easy grade over the summit of Brewster and Og passes, though many of the walkers took a short-cut over the shoulder to the east of Brewster creek from the summit of the pass, which brought them directly to the small tarn on Og pass.

Our thanks are due to the National Parks authorities for many kindnesses, including permission to drive over Healy Creek fire trail for about two and a half miles from the gate on Sundance Canyon road.

The weather on the whole was very favourable, and considerable mountain climbing was accomplished before it finally broke during the last week of the camp. Trips were made to the fly-camp on Mitchell creek below Ferro pass; to the fly-camp on Aurora creek, and to the many small and beautiful lakes around: also to Cave mountain and Marvel lake, where excellent fishing was enjoyed, the fish providing a welcome change of diet. Picnic, botanical, and sketching parties also were undertaken and much useful material was secured.

Twenty-seven of the members passed the test for active membership, climbs being made as follows:—

From the Main Camp

Mounts Assiniboine, Cautley, Magog, Naiset, Sturdee, Terrapin, The Nub, Towers, Wedgwood, and Wonder.

From Mitchell Creek Camp

The Marshall (first ascent by northwest ridge and west face) and mount Wonder.

From Aurora Creek Camp

Mounts Aye, Brussilofd, Eon, and Sibbald (a first ascent of the spur south-east of Aye).

Visitors at camp included members of the club from London and Oxford, England, and also parties from the United States and from different parts of Canada. A total of 140 persons was accommodated under canvas, representatives attending from the Alpine Clubs of England, France, the United States, and Switzerland; also from the Royal Geographical Society; the Appalachian Mountain Club; The Mazamas; the Sierra Club; and the British Columbia Mountaineers.

The annual meeting of the club was held in camp on July 31 for the presentation of reports and necessary business.

